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Incorporating *International Commerce*

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Commerce Today

Coming Developments in Business and Technology

FROM THE
SECRETARY

A Specific Spur To The Economy

(This column was written by James H. Wakelin, Jr., Assistant Secretary of Commerce for Science and Technology.)

Technology may be the idea whose time has come in 1972.

That is not to say that technology was not talked about before. Throughout the 1960s Congressional committees held hearings, sponsored studies, and published reports attempting to find rational Federal policies and programs for technology assessment. The Executive Branch sponsored other studies.

National conference

In 1963 a report to the National Science Foundation recommended a program to foster transfer of existing technology to the building industry. In March 1963 a pioneering national conference on technical innovation explored problems of innovation and organizational structures relating to research and development.

Following a recommendation of the National Academy of Sciences, the position of Assistant Secretary of Commerce for Science and Technology was established by statute in February 1962. Thus, for the first time, there was a focal point, within the Executive Branch, for civilian technology. The Secretary of Commerce organized the Commerce Technical Advisory Board in January 1963, to advise the Government on scientific and technical matters which affect economic growth, and to conduct in-depth studies on technological problems. Thus was created a channel of communication on technology, between the Government and the private sector.

One of the early studies by a CTAB panel examined three main factors affecting invention and innovation—taxation, finance, and competition. The effects of its recommendations were programs and policies to:

- provide justifiable encouragement to inventors and innovators.
- communicate venture capital opportunities more widely.
- promote a basic understanding of the innovative process in all sectors of the society.

I cite this history because each of these events, with others, was a milestone in the Nation's consideration of civilian technological innovation. What has been missing has been a concern, at the highest levels of the Executive Branch, about the uses of civilian technology. Now, for the first time, we have such a concern.

Goals-oriented program

The President, in the first and recent Congressional message on science and technology presented a specific, goals-oriented program and assigned responsibilities to the Department of Commerce and other agencies. The result of these efforts, building on over a decade of work should be specific progress to spur the economy, building a new technological base to help our future trade balances, and provide a better quality of life for all.

James H. Wakelin Jr.

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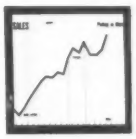
2 Economic Highlights

March puts spring in retail sales after winter's sluggishness; furniture and other durables strongest but substantial increase registered in almost every major category.



4 Increased Productivity Will Help U.S. Win 1970s' Economic Battle

More productivity by industry and better use of technology will help win the economic competition, says Secretary Peterson.

9 U.S. Seeks To Lessen Impact Of Pollution Controls

Efforts to get an international agreement are now under way; the idea of "polluter pays" is rapidly gaining headway.

14 More Doors Opening To Aid Minorities In Business World

Federal agencies are expanding their assistance programs to help generate more small firm activities.

17 Law Enforcement Labs Determining Standards To Aid Manufacturers

Uniform equipment to simplify the meeting of future customers' problems is of primary importance to equipment manufacturers.

21 Domestic Business Report

All angles of marine pollution problems—Population distribution guidelines set—Reverse trade show innovative approach—Interstate migration aid in business plans—Injured industries getting new life—A U.S. potential-domestic shipping.

31 Science & Technology Report

Radar to measure rainfall in big lake study—Earlier warning devices available can save lives—New means to stimulate industrial R&D sought—Treated sewage seen food for commercial shellfish—Nationwide weather services plan further expansion—Patents of special interest.

39 International Commerce Report

U.S. sales position sags in most major world markets —UNCTAD meets in Santiago—Washington trade briefs—Report on drainage mission to Egypt—Economic rebound in Sweden—U.S. outpacing competition in Denmark—Reviews of five trade reports.

COVER: *Commerce Secretary Peter G. Peterson addresses newsmen and guests at a National Press Club luncheon in Washington earlier this month at which time he commented upon the needs of U.S. business and industry in coping with the economic battle of the 70s.* *See story on Page 4.*

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ECONOMIC
HIGHLIGHTS

March Puts Spring In Retail Sales; Household Durables Set Fast Pace

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

The arrival of spring coincided with a renewed blossoming of retail business, as sales rebounded in March after a period of sluggishness and resumed the uptrend that had prevailed through most of 1971.

Some consumers may have been inspired by the early Easter but the March gains were not confined to goods usually associated with the spring holiday. Even after seasonal adjustment, the figures seem to indicate a strong revival of consumer interest. Some of the best gains were in household durables and autos—discretionary items that usually mirror consumer confidence.

In early 1971, retail sales recovered sharply from the automobile strike of late 1970, moved up more slowly around midyear, and then shot up during the wage-price freeze that ran from mid-August to mid-November. From July to November, sales went up 5½ percent, or an annual rate of 17 percent. Durables rose even more strongly during this period as autos received a strong stimulus from the removal of the excise tax and the rollback of a price increase. Anticipatory buying of autos and other large durables helped push retail sales to a peak in November as consumers assumed that prices would increase after the freeze.

After this boomlet, sales declined in December on a seasonally adjusted basis, although Christmas buying was well above the 1970 level. There was little change in January, and a fairly good gain was registered in February.

On the surface, the mixed pattern of January-February sales was somewhat puzzling. An increase in income tax withholding rates apparently offset, for the time being, the income tax reduction that took effect at the beginning of the year. Sales of apparel and other seasonal items were adversely affected by the mild winter, especially in the northeast. Food sales also were slow, possibly because consumers have been switching their purchases to less expensive food items.

By contrast, the category that includes lumber, building materials, and hardware was up 21 percent in January and February compared to a year ago, and furniture and appliances were up 16 percent. Both of these groups apparently were responding to the roaring boom in housing. The dollar volume of auto sales also showed a good gain over a year ago although prices of autos have declined 3 percent over the past 12 months.

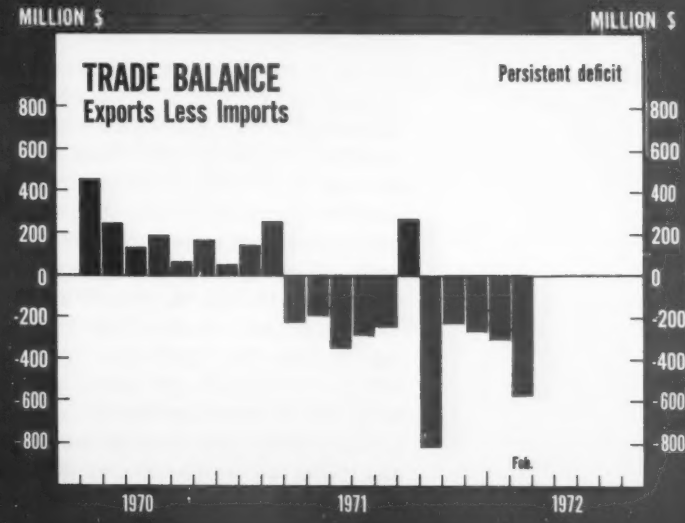
The picture brightened considerably in March, not only because of strong total sales but also because of the better balance among the major categories. Household furnishings and building materials and hardware continued very strong.

Retailers of general merchandise, after experiencing brisk Easter sales, are heartened by the prospect of six full weeks between Easter and Mother's Day—the next peak selling season. This year Easter was one week earlier and Mother's Day will be one week later than in 1971.

Other economic data

The sustained uptrend in the composite index of leading business indicators clearly signals strong growth ahead. The foreign trade balance continues in deficit.

Latest Indicators



All data seasonally adjusted except weekly retail sales

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Increased Productivity Will Help U.S. Win 1970s' Economic Battle

America's Competition 'Lean, Hard, Talented,' Secretary Peterson Tells National Press Club

More productivity by American industry combined with the better use of technology and better thinking about the economic future will help this country win the economic competition of the 1970s, Secretary Peterson said in an address on the future in general and the economy in the years ahead in particular.

In doing this, Secretary Peterson recently told a standing-room only audience at the National Press Club in Washington, greater productivity will mean more jobs, more pay and more buying power—"in the short run, of course, pocketbook goals that have clear meaning to every American family.

"But in the long run, there are important questions. I think the new citizens of this country must know both that it matters and why it matters," Secreary Peterson told the group of newsmen and their guests. "They must know that it makes a difference."

Peterson said it may help relieve some of the modern-day confusion "to live in the future—predict it, project it and most certainly not be paralyzed by it.

"Then we as a people decide what we want and what it is we are working for" and during this process this country may find "this elusive thing called national purpose."

"Of all our institutions, government is one that has special difficulty in focusing on the future for it is bound by elections to a very regular, short-term timetable. In order to survive, any government has to think a great deal about the next election. And that leaves precious little time for thinking about the next generation.

"Our problem, I think, is that most of us still expect problems to hold still while we try to solve them. We still do not appreciate what it really means to be residents of the 'State of Flux.' We have not been thinking far enough ahead. We stand in line for tickets on a train that has left the station.

"And the challenge of keeping up with time is not simply a matter of predicting where it is going and organizing some elaborate welcoming ceremony in the hope it will choose to settle down. Rather, our challenge is to move on with it.

"For example, for a long time the central motivations of our economy came solely from internal competition. One American business competed against another American business. As far as the economy as a whole was concerned, however, there was very little real competition from the outside world. As President Nixon has put it, we were running

against the clock—like Paavo Nurmi. Perhaps this spring we should say we were a little like the UCLA basketball team that people often say faces its stiffest competition from its own freshman squad.

"The result of all this was that we almost forgot that there was a game going on in the international arena. We were not even very careful about keeping score. We collected very few statistics, we sent out very few scouts, we studied no game films of our opponents. And in the absence of stiff competition, we even grew a little fat and lazy. The competition today is lean, hard, and talented.

"Thus, at Commerce," Secretary Peterson continued, "we are now exploring ways that we can begin a much more systematic method of collecting information on our competitors abroad. The federal bureaucracy, I've found, tends to produce tons of data but only ounces of analysis as to what it means. We are now engaged in an effort to try to get a very comprehensive look at the competitive position of the U.S.—in our technological position, in our new plant and equipment investments, in tax incentives, in share of export markets, in raw materials, and so forth. I propose such a competitive intelligence system on the grounds that diagnosis should usually precede the cure.

"Another new reality which will affect our long-range future is the interrelated nature of the problems we confront and the interdependent quality of their solutions. It is no longer enough to address one part of a problem with the confidence that others are addressing other parts of the problem and that the various solutions will eventually converge.

"More than that, the time and energy and resources we apply in any one place are not available at another place. To decide to do any one thing in a finite world is to trade off the opportunity to do something else. In short, the problems we face today are 'systems problems' and they demand a 'systems approach'.

"Our energy situation, for example, includes the entire web of social, economic, political, scientific and technological factors. It is not just a security problem, or a scientific one, or an economic one, or a balance of payments, or an environmental one: it is all of these, and probably more, interacting.

"It is a root problem of our society, but we have not yet fully grasped the nature of the alternatives open to us and the consequences of those alternatives for our national future.

TRADITIONAL—*Secretary of Commerce Peter Peterson (left) accepts the certificate of appreciation and the traditional National Press Club necktie following his recent speech to the club. At right is Warren Rogers, club president.*

"The fact is that decisions which are made primarily for tax reasons or for security reasons or for environmental reasons or for transport reasons, and which affect business generally, all have an enormous impact on our ability to supply sufficient energy. The problem is that the immediate considerations in each of these related fields always seem more important than energy considerations which will not be felt for another few years.

"History suggests that only when there is a brownout—or some other dramatic event—can the people who make energy their primary business get the attention of those who make tax policy or security policy or environmental policy or transportation policy their primary business. No wonder many say the nation has developed a crisis mentality and is engulfed by crisis rhetoric.

"As the President's energy message has made clear, as a nation we failed to anticipate and adequately plan for the present national energy crisis—and this is a problem with

which Commerce and others in the Administration are already deeply involved in a major Domestic Council effort. The problem caught up with the country faster than expected. The U.S. formerly had sufficient energy reserves to meet almost all of its needs and sustain economic growth. In fact, this abundant supply of low cost energy has provided the base for much of our industrial might.

"There are a variety of broad options for dealing with this energy crisis.

"Should we restrict energy demand? How? Perhaps more relevant, whose demand? For what products and services? At what costs to our economy?

"Or, should we stimulate domestic production? Of what energy reserves? How? By increasing prices? or tax incentives? or developing new energy sources? or tapping the continental shelves? (Which is why the next fiscal year, we will launch an intensified program of mapping our continental shelves.)

"Or, should we increase imports? Of which products? From where? Transported how? Where?

"Each of these options has different security implications, different competitive implications, different cost implications, different environmental implications—in short, different tradeoffs, and undoubtedly different constituencies.

More study

"While we are not presently prepared to accept these projections without further study, we have heard it said by some that it will be necessary to import an estimated one half to two thirds of our daily oil requirements, to reach the total demand that has been projected for 1985.

"According to estimates prepared by the Maritime Administration at the Department of Commerce, this would require a U.S. tanker fleet as large as the present world tanker fleet of 160 million deadweight tons to transport this fuel to the United States by 1985. To accommodate larger tankers, and achieve the necessary reduced shipping costs, the country will need to develop deepwater port facilities—which it presently lacks, and which in some cases have been opposed for political or environmental reasons.

"These facilities will be difficult and costly to obtain since, in most instances, we have reached the economic and practical limit of dredging existing harbors. The answer could be constructing one or more ocean terminals in U.S. coastal waters.

GIVES THE ANSWER—*Following his speech to the National Press Club, Secretary Peterson answered questions from newsmen. At right is Under Secretary of Commerce James T. Lynn. Most of the questions centered around international trade.*

"You may ask why it is so important that supertankers be employed in the transport of our petroleum imports. To put this in perspective, it is important to realize that almost three fourths of the free world's oil reserves are in the Middle East and, therefore, any oil import in the future is likely to come from this area. Because of its great distance from the U.S., transportation costs for this oil will become a significant part of the ultimate cost to the U.S. consumer. If the oil continues to be transported in the typical size tanker, the annual transportation cost would be approximately 60 percent more than if it were transported in ships at least five times this size, and these have become standard in world trade. And even with the full utilization of the lower cost super-tanker, transportation would represent some 30 percent of the landed costs of the imported oil.

"As I have indicated, because of this cost difference, the large ships are being projected for transportation to the Bahamas and Canada. In doing so, we are exporting refining capacity and jobs from the U.S. and contributing further to the balance of payments problem.

"Because a problem such as this is so interrelated, the Department of Commerce cannot either be a one-cause advocate: the cause of business exclusively. This is why I strongly support not only the Domestic Council concept but as you might expect from

my previous incarnation, the Council on International Economic Policy. This is why I also strongly support the President's proposed reorganization plan: melding into a new Department of Economic Affairs the functions of commerce, labor, and transportation.

"The fact that Cabinet Secretaries are seen as advocates for various constituent groups rather than general public servants is particularly dangerous at a time when hard problems are so interrelated and their solutions interdependent.

"According to popular notions, one of the chief culprits and most frequently cited examples of short sightedness has been the mindless march of technology. I don't want to minimize the adverse effects we have suffered from technology, but I have to conclude that it is a great force for good as well as evil. Ever since our distant ancestors started playing with fire it has solved more problems than it has created.

'Accentuate positive'

"What we have to do is to borrow a phrase from Tin Pan Alley—to 'accentuate the positive; eliminate the negative'.

"On the positive side, we must, as the President has said, 'harness the discoveries of science in the service of man.' Also on the positive side, we have to reap more economic benefit from our research and development dollars. We now spend $17 to $18 billion in government R&D—enormous sums spent on R&D that are several times the total research and development investment of our leading competitors abroad and almost 60 percent more than all of U.S. company-sponsored R&D budgets in America. A certain mythology has developed that there has been vast industrial fallout from government R&D.

"It is true that there are a number of outstanding examples. Nonetheless it is my starting view that the level of industrial fallout is simply inadequate in relation to the enormity of the investment and in relation to the payout to the U.S. competitive position.

Major experiments

"This is the reason that the President, in his new technologies program, has provided money to the Department of Commerce for some major experiments on how this industrial fallout can be increased.

"As a preliminary hypothesis I would suggest that there are two kinds of companies with regard to government R&D. . . . There is one which looks upon research contracts with government R&D as an end in themselves. They have developed a special mentality—they are a part of a special subculture—they see government R&D contracts as profit making opportunities measured solely by the profit in the contract itself. And by their own public statements, they have done poorly in creating commercial businesses.

"There is a second type of company—some of America's best commercial companies, which have demonstrated their innovative ability to build industries, patents and jobs, who either do not get involved at all in government R&D or, if they do, usually not with their best people, not with the company's total resources. Why is this so? Well, I suspect one of the reasons is the patent policies of the government. In the risky entrepreneurial world of innovation, many of these companies have apparently concluded that what belongs to everybody, in fact, really belongs to nobody. They have learned many times that what is everybody's job is really nobody's job. Thus, high on our agenda must be a whole new look at incentives for companies to commit their best technical people and some of their money and still repay the public interest, the public investment on that technology.

"The President has asked the Department to explore incentives for private sector investment in R&D and new patent policies to insure that Government-held technology is put to work for the people who paid for it—the U.S. public.

"We will have to ask ourselves some hard,

and in some ways, new questions. How much economic value is inherent in the Nation's publicly paid for R&D? How successful have the agencies been in moving this technology to the market, creating jobs and increasing productivity?

"I have asked the Patent Office to gather together in one place the answers to questions like the following: How many government patents have been licensed? How many have been used in commercial products?

Study still in progress

"While this study is still in its early stages, this much can already be told.

- "The overwhelming percentage of these patents have not been licensed to anyone.
- "Even among the licensed patents, the preponderant number have not found their way into commercial production.
- "Virtually all of these patents are offered on a non-exclusive royalty-free basis—to foreign partners; or if you don't mind, foreign competitors as well.

"I believe we will also find, when we take a hard look at the Government's efforts at technology utilization for economic benefit, that the best success stories concern R&D projects designed originally with their potential for commercialization in mind. In short, one does not tend to find things he isn't looking for and the Government must find better ways to factor in at the outset commercial possibilities into Government technology strategy.

"What all this means to me is that we are facing a new world. We are facing more than era of impressive new competition of goods from abroad. We are facing equally impressive competition of new ideas and new values at home.

"It will not be enough that we want more productivity—we want better use of technology—we want better thinking about our economic future—we want to win the economic competition of the 70s. For I think we will be asked win for what—win to what end? In the short run of course, there are pocketbook goals that have clear meaning to every American family—more jobs, more pay, more buying power. But in the long run, there are important questions. I think the new citizens of this country must know both that it matters and why it matters. They must know that it makes a difference.

"Some of the same people who call for zero growth also call for major expansion of government programs in the quality of life.

Project costs

"The Office of Management and Budget says we just project the cost of existing quality of life programs and those that are now in the President's program—programs incidentally that many of these critics would suggest are completely inadequate—the costs of these programs alone will be about $75 billion, about $25 billion more than they are today—by the year 1976.

"From the very beginnings of our country the 'boundless' nature of our resources has been critical in shaping our character.

"De Tocqueville used this very word, 'boundless,' as a key to understanding America. The endless abundance of our country allowed us to believe in unlimited opportunity, it allowed us to dream impossible dreams. As the pioneers went westward they sang a song which said that 'Uncle Sam is waiting to give us all a farm'.

Limit to abundance

"But now we are faced by a growing sense that there are limits to this abundance, that our economic expansion—like our geographic expansion—may be running out of room. To the degree that these are accurate assessments, they can affect not only our economic behavior but our way of looking at the world.

"The pursuit of social justice, for example, can be a relatively uncontroversial thing when the pie of opportunity is growing ever larger. But the challenge becomes much more difficult—is irreconcilable. It is a form of contemporary cop-out to take rigid, ideological, even theological and always simplistic positions to what are, at their core, highly complex but equally pragmatic problems.

"I would say nothing may help lift the curtain over our confusion than for us to live in the future—predict it, project it and most certainly not be paralyzed about it—and, then as a people, decide what we want and what it is we are working for. We may well find that, as in so many things, this elusive thing we call national purpose will be found in our making the journey, rather than picking the destination," the Secretary concluded.

U.S. Seeking To Lessen Impact Of Pollution Controls On World Trade

Efforts To Get International Agreement Now Under Way; 'Polluter Pays' Idea Is Gaining

Given the substantial costs involved in wide-scale pollution control, how will the worldwide competitiveness of U.S. industry be affected? Are some foreign competitors being insulated from the shock effects—while others are being more sharply exposed to them? Are balancing international regulations on the horizon? The U.S. foreign trade community, urgently concerned with such questions, is beginning to get some answers.

It is inevitable that the prices of certain products will rise to reflect the added costs of pollution abatement. Domestically, though state and local requirements vary somewhat, such differences should not seriously affect price competition. Internationally, however, environmental control measures may distort prices if the major trading nations pursue differing pollution abatement policies.

The Department of Commerce, together with the Council on Environmental Quality and the Environmental Protection Agency, recently issued 12 privately-contracted industry studies on the economic impact of pollution control (see *Commerce Today*, March 20, Page 4). The studies estimate that in the 1972-80 period U.S. industry will have to spend at least $26 billion for abatement equipment to meet air and secondary water treatment standards. This figure does not touch solid waste and noise pollution problems, nor does it consider resultant costs if stricter standards are established in the years ahead.

Increasing attention is being devoted to these problems on the international level, with the U.S. as a participant. These efforts, however, are still in an early stage.

Two kinds of policies

There are two basic areas of divergence in national environmental policies that can affect international price competition. The obvious one is difference in timing and scope of standards. More will be said about this aspect of the problem later in this article. The other area for divergence, which is not as readily apparent but is nonetheless im-

UNIVERSAL EXPRESSION—*Dutch youths demonstrated peacefully for clean air and water at a Commerce-organized technical seminar on pollution control problems last year in Rotterdam.*

portant in terms of cost and price effects on final goods, is the method of assigning the costs of pollution control as between the government and the private sector.

President Nixon has already indicated that in the United States the cost of pollution abatement should be borne by the polluter. In his State of the Union message of 1970 the President recommended that the price of goods "should be made to include the cost of producing and disposing of them without damage to the environment," and he reiterated this position in the 1971 Message on the Environment.

There are, of course, other ways of allocating the costs of pollution control. One example would be to tax society as a whole—such as through a rise in income taxes—and redistribute the taxes in the form of subsidies or other financial advantages to producers who must implement pollution controls. This approach is attractive in certain respects, primarily because it would not necessitate price increases for final products.

However, it might be asked why a citizen who chooses not to consume the polluting product should be required to pay a tax for controlling the pollution created by the production or consumption of that product. Furthermore, incorporating pollution control costs into the price of a product gives an incentive to develop more efficient controls or less polluting techniques. It encourages producers and consumers to buy goods whose production or use causes less pollution.

Yet, if the trading partners of the United States were to resort to subsidies and similar methods for allocating pollution control costs, the price of their goods might not reflect the additional pollution control costs. Such subsidies could have considerable impact on trade patterns in cases where products that are traded internationally are subject to significant pollution control costs.

To take a hypothetical example, assume that both the United States and one of its major competitors were to adopt identical requirements for allowable levels of water waste from pulp and paper factories. Assume further that the other government subsidized the installation of pollution control equipment to clean the effluents, while the United States did not. It can be assumed that the cost of paper products manufactured in the United States would have to be raised in order to offset the cost of added equipment. Since foreign manufacturers, in this example, would receive subsidies to pay for their equipment, the price of their final product would not be significantly affected. As environmental standards become more stringent, the price competition effects of differing methods of assigning costs become more important.

International agreement efforts

Is this problem being tackled by U.S. officials? Yes. In order to obtain the maximum degree of trade neutrality from the allocation of the costs of pollution control, the United States proposed last year to seek international agreement on the concept that the polluter should pay the cost of pollution abatement.

The concept of "polluter pays" has been discussed for several months in the Environment Committee of the Organization for Economic Cooperation and Development (OECD). OECD members include all the industrialized non-communist countries of the world. Generally these are countries which face major problems of industrial pollution—some of them more serious than our own—and they are also the countries with which we conduct most of our industrial trade.

The OECD now seems to be very close to agreement on adoption of the "polluter pays" principle as part of a set of guiding principles concerning the international economic aspects of environmental policies. Exceptions to "polluter pays" will be allowed for hardship cases. Although rules for such exceptions have not been developed, it is

expected that exceptions will be of a temporary nature and designed to have as little effect on trade as possible.

It is obvious that international agreement on "polluter pays" as a method for allocating pollution control costs will not solve all problems connected with the impact of pollution controls on trade. When different countries have widely divergent standards for products or manufacturing processes, competitive prices are likely to be affected.

Product and process standards

It is useful at this point to distinguish between the trade effects of pollution standards for products and standards for the production process itself.

It would be very difficult for any country acting on its own to deal with the distortions in costs resulting from different national environmental standards on the production process. While the United States can apply performance standards for products imported into this country, it cannot legislate controls over a manufacturing process that takes place in another country. A divergence in national environmental standards applied to two otherwise competitive industries would shift the balance in favor of the country with lenient standards.

At this early stage of international consideration, the best approach to the problem of neutralizing the trade effects of pollution control costs is to coordinate environmental policies among the major industrialized countries. The OECD guiding principles thus would call for harmonization, to the extent possible, of environmental policies with respect to timing and general scope of regulations for particular industries.

Other major trading countries face basically the same industrial pollution problems the U.S. faces. In fact, in Japan and parts of Western Europe the problems are substantially more severe. Generally the industries that have to pay more to control their pollution in the United States will also have to pay more in Europe, Canada, and Japan. The U.S. producer that must implement new pollution controls would no doubt be reassured to know that its competitors in other major countries will be faced with broadly similar cost and production changes in approximately the same time frame.

It would not be realistic to try to negotiate identical regulations for particular industries. Each country must make its own decisions concerning acceptable pollution levels based on its particular mix of geography, climate, population, social objectives, and industrialization. However, a coordinated approach as to timing and scope of pollution controls could avert many of the trade problems now anticipated by U.S. export and import-competing industries.

WHOSE STANDARDS?—*Equipment with pollution aspects moving in international trade raises the question of whether anti-pollution standards should originate in the exporting or importing country. This is a shipment of Toyota automobiles from Japan arriving in a California port.*

One alternative to environmental policy harmonization that has been suggested is a system of border adjustments to offset price differentials caused by differing national pollution control costs. This would mean that an imported product would be charged an amount equivalent to the difference between the pollution control cost incurred by a domestic producer and the cost incurred by a foreign producer. Similarly exporters would benefit from a rebate of this amount.

While in theory this may appear a reasonable solution, in practice this approach would be very hard to administer equitably. It would be difficult to identify pollution control costs chargeable to each unit of a product. Moreover, other countries that produce a given product are likely to have their own anti-pollution requirements. Under such circumstances setting the exact levels of cost differentials for each product with each foreign competitor would be virtually impossible. There would be considerable opportunity for international dispute concerning appropriate levels of adjustment. The ap-

plication of such border adjustments to internationally traded products might also raise basic questions under the General Agreement on Tariffs and Trade (GATT).

Further, it might be asked why environmental costs, which appear similar to costs of complying with other governmental requirements, should be singled out for special consideration. Neither the United States nor other countries have considered it appropriate to authorize border adjustments for the costs of adhering to safety or health standards. Application of such border adjustments for pollution costs by one nation would surely lead to similar acts by others.

Effective implementation of the OECD's guiding principles, particularly the polluter pays and harmonization provisions, should make it unnecessary for member countries to resort to compensating import levies and export rebates, or other measures having an equivalent effect, to offset price differentials due to environmental policies. The guiding principles are also expected to establish a mechanism for notification and consultation concerning environmental actions having international economic effects.

Product standards

Products that pollute during their use—such as the automobile—are generally controlled by imposing standards on their performance. The trade effect of environmental product standards can be neutralized by applying domestic standards to imports and exempting domestic products that are exported. This approach is in accord with established U.S. policy and the practices of other countries regarding domestic health and safety standards related to product use.

On the import side this approach appears unquestionably correct in most cases. However, some have raised the question of whether a country should permit the export of products which do not measure up to domestic environmental standards and are consequently judged to be environmentally undesirable within its own boundaries.

This argument is countered by those who believe foreign governments should determine their own product standards based on their own environmental circumstances.

For example, the United States Government has decided that automobile emissions must be reduced. Given the current state of technology, pollution control devices necessary to achieve legislated standards will add significantly to the price of each automobile. In certain less industrialized, less populated countries, where fewer vehicles are in operation, however, strict emission controls may not be necessary. It is doubtful that any country, regardless of its state of development, will want to spend more for a product because of pollution control devices it does not think are requisite.

In isolated cases a particular product standard imposed for legitimate environmental reasons may have the inadvertent effect of discriminating against imports.

As an example, suppose the United States decided to ban the use of all throw-away beer cans and bottles. In order to encourage consumers to return their re-usable bottles, the producer would be required to charge a deposit for each bottle when it is sold and refund it when the empty bottle is returned. Obviously, foreign beer producers could be disadvantaged in this example because of the sizeable cost of returning used bottles to their country.

Serious trade problems can generally be avoided in cases such as this by allowing importers and foreign producers to express their views while standards or other requirements and their implementing rules are being developed. If it appears that a proposed environmental regulation will have significant adverse trade effects, a solution may be worked out before the rule is implemented.

Another potential trade problem is the testing procedure for certification of products. Exporting countries may be disadvantaged, for example, if their products must be inspected upon importation while domestic production is inspected during the production

The Organization for Economic Cooperation and Development (OECD) mentioned in this article brings together the major industrialized nations, which keep resident delegations at the Paris headquarters. Its Environment Committee is but one of many permanent OECD units formed to promote economic expansion and world trade.

The OECD currently has 23 members: Australia, Austria, Belgium, Canada, Denmark, Federal Republic of Germany, Finland, France, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

process. Testing procedures for imports also may be ambiguous, leaving the foreign manufacturer uncertain as to whether his product will be acceptable even after it is shipped.

A solution to this problem now being explored is an international system of reciprocal recognition of product certifications issued by testing agencies in the country where the product is manufactured. A code looking toward such reciprocity is currently being negotiated by members of the General Agreement on Tariffs and Trade. International certification of standards could go a long way towards minimizing trade difficulties caused by environmental measures, not only for importers, but also for U.S. manufacturers who must have their products certified for export to other countries.

In the U.S. the Federal Government is trying to insure that environmental standards for products and their application in this country and abroad serve only to accommodate environmental problems and not give rise to new non-tariff barriers to trade. Non-tariff barriers, such as application of standards which disadvantage foreign versus domestic production or complex certification procedures for imports, can often be avoided if new rules and regulations are carefully analyzed before their implementation.

The opinions of foreign governments and manufacturers are important and should be considered in the process of implementing regulations. As mentioned earlier, the Organization for Economic Cooperation and Development is now developing a system of notification and consultation on member country environmental actions that may affect the economic or trade interests of other countries. This system will give U.S. exporters the opportunity to make their views known on regulations in other countries that might cause them problems.

Controls in non-industrialized countries

Up to this point the focus has been on environmental policies in the industrialized countries. Industrial pollution is not yet a major problem in most developing countries. These countries may, therefore, choose not to adopt stringent and costly pollution regulations, at least at the present time. Differences in pollution regulations may lead to some shift in production to countries with lenient regulations by heavily polluting industries now located in industrialized countries. The creation of "pollution havens" presents a potential problem for developed and developing country trade and investment relations.

OPPORTUNITIES FOR U.S. SALES ABROAD— *Commerce Department has staged several successful overseas export promotion programs in the pollution control field, including this exhibition last year at PROAQUA-PROVITA trade fair in Switzerland. For information on planned activities this year at Frankfurt, Stockholm, Tokyo and in Eastern Europe, write the Office of International Trade Promotion, BIC-910, U.S. Department of Commerce.*

The economic development of non-industrialized countries will, of course, be aided by the influx of foreign capital and know how and the increased export earnings brought by these industries. Further, it is possible that the assimilative capacity of the environments in certain developing countries may enable such countries to better handle polluting industries in the long run than heavily populated industrial nations do now.

It should be pointed out, however, that while environmental concerns are only one of many cost factors that cause industries to relocate in other countries, they can give rise to problems for the developed countries. Although an industrialized country would lose sources of pollution when a firm transfers its manufacturing facilities, it would also lose the productivity, employment, and tax revenues of that firm. Even if profits are eventually repatriated to the parent company, the short term balance of payments could suffer.

Meanwhile, the emerging worldwide concern over the environment and resulting demand for pollution equipment will likely benefit U.S. export sales. The United States has traditionally been a leading exporter of high-technology goods. Pollution control equipment and technology are rapidly assuming importance as export items. Businessmen should recognize this opportunity and develop plans to take advantage of it.

—Bureau of International Commerce

More Doors Opening To Aid Minorities In Business World

Federal Agencies Expanding Assistance Programs To Help Generate More Small Firm Activities

Arthur McZier
Asst. Administrator, Minority Enterprise
Small Business Administration

Minorities who want to open their own businesses or to expand existing firms will find more doors opening up to help them through increased government activities established to assist minority business enterprises.

Because of these activities:

- More Federal loans, contracts, bonds and lines of credit will be extended to minority businesses.
- Concentrated efforts are being made to extend management assistance to a greater number of minority businessmen.
- Greater capitalization will be available through a larger, more extensive Minority Enterprise Small Business Investment Company program.
- More banks will find assisting minority business development attractive through new features added to the Federal programs.

COMPETITIVE BIDDER—*Goshute Enterprises, an Indian firm, won a competitive bid under section 8(A) of the Small Business Act to manufacture cattleguards for the Forest Service and Bureau of Land Management. Indian workers are shown here working on a snowmobile trailer at their plant.*

One Federal agency that is focusing its efforts in this direction is the U.S. Small Business Administration, according to Arthur McZier, Assistant Administrator for Minority Enterprise for SBA.

Funds generated

McZier pointed out that during the past 18 months more than $138 million, representing $76 million in loans and $62 million in contracts, bonds and lines of credit, have been generated for minority firms through SBA efforts.

McZier added that SBA expects a substantial rise in the amount of money extended to develop minority business over the next 18 months.

He emphasized, "This business activity over the last year and a half means that nearly $30 were returned to the minority businessman for each SBA dollar spent in grants."

This figure per businessman is also expected to increase.

The business activity generated over the 18-month period by the agency was made possible through 27 grantees which were funded $4.7 million by SBA. These grantees provided management and technical assistance to small minority-owned firms under an SBA program authorized by Title 406 of the Economic Opportunity Act.

Minority entrepreneurs also shared in the benefits of increased SBA management assistance activities, he said. Management courses, conferences, workshops, and clinics co-sponsored by SBA during 1971 increased 13 percent over 1970 from 2,378 to 2,700. More than 114,000 persons attended these programs in 1971 compared to 93,800 during 1970, representing a participation increase of 21.5 percent.

McZier said the increase in management assistance was extremely important because of the urgent need for proper management practices to the long range plans and profitable operation of small enterprises.

Off to a 'good start'

A good start in the Minority Enterprise Small Business Investment Company (MESBIC) program also was recorded last year. Licensed by the Small Business Administration, MESBICs are small, minority business investment companies with strong parent support designed to assist disadvantaged firms.

The number of MESBICs more than doubled during the year, rising to 49 now licensed by SBA with an aggregate private capitalization of $14 million. When federal monies available ($3.5 million) are fully utilized, they can generate more than $100 million for the minority community.

MINORITIES AT WORK—*Nelson Carlo (left), owner of Abbott Specialty Metals Co., Inc., discusses a job with his foreman, Nemecio Hernandez. Carlo's work force is 80 percent minority and he plans to hire and train 100 more minority workers soon.*

McZier pointed out that loans to minorities increased 24 percent over FY 1970 to 7,776 loans for $213.8 million.

Greater participation by banks with SBA under the loan guaranty plan was a big factor in last year's increase in minority loans, McZier reported. Simplification of loan procedures, and innovations such as the three-day "automatic" processing plan, have made bank participation in the program more attractive, he added.

Under the three-day plan, SBA field offices have made participation in SBA loan programs more attractive to the banks. If the bank does not hear to the contrary within three days, it can assume that SBA has approved loan application.

Government contracts awarded to minority firms under SBA's procurement program rose to 812 for $66 million during FY 1971 compared to 199 contracts for $22 million in FY 1970.

Under this activity, authorized by Section 8(a) of the Small Business Act, SBA acts as prime contractor for goods and services being acquired by Federal procurement agencies. It then subcontracts these orders to disadvantaged small businesses.

Steady progress is also being made in strengthening and expanding other minority enterprise activities in SBA such as lease guarantees, line of credit financing for small minority contractors, and new sources of management and technical guidance for minority businesses.

Under the lease guarantee program, SBA can insure an insurance policy or reinsure a policy issued by a private company which guarantees the rent for a small firm. This makes it possible for small firms lacking top credit ratings to lease good locations they could not otherwise acquire. Ten percent of all SBA commitments since July 1, 1971, have been issued to minority enterprises for $5,814,840 in guaranteed lease payments.

Eliminating the negative

The passage and implementation of SBA's Section 911 bonding assistance and guarantee program partially eliminates a major stumbling block for minority contractors. The program authorizes SBA to provide a 90 percent guarantee of any bid, payment or performance bond for small contractors on contracts up to $500,000.

Additional sources of management help for minorities are being made available in several ways. Organizations receiving grants from SBA to furnish management assistance are expanding their operations across the country.

More volunteers are also joining the Service Corps of Retired Executives (SCORE) as well as the Active Corps of Executives (ACE). The President's Reorganization Plan provides for the transfer of the function of SBA under Section 8(a) of the Small Business Act relating to SCORE and ACE to a newly established agency called "Action." Significantly, however, these volunteers remain subject to the direction of SBA in providing technical and management aids to individual small business concerns.

Additionally, SBA maintained 117 Minority Enterprise Representatives (MERs) in the field last year delivering the minority enterprise program at the community level. These are individuals who help make SBA's goal of equality of opportunity in the free enterprise system a reality.

McZier concluded that a bright future for SBA's minority enterprise activities seems imminent. "I feel that the public in general has a much better idea of what our minority enterprise program is all about," he declared, "private industry is taking a more active role, and I sense a much closer working relationship between the local community action groups and the Federal agencies involved in the minority business development movement."—*Small Business Administration*

Law Enforcement Labs Determining Standards To Aid Manufacturers

Seek Uniform Equipment To Simplify Meeting Future Customers' Problems

An extensive range of work which is of primary importance to manufacturers of law enforcement equipment and its users is being made in a broad assembly of laboratories under the direction of Commerce's National Bureau of Standards (NBS). This program is sponsored and at present entirely funded by the National Institute of Law Enforcement and Criminal Justice, the research and development arm of the Law Enforcement Assistance Administration (LEAA) of the Department of Justice.

The object of the program is to develop the most effective performance standards, and in some cases design standards, for equipment used in law enforcement, and hopefully to achieve a high degree of uniformity in the employment of these processes.

The standards are expected to aid manufacturers of law enforcement equipment by enabling them to know what their customers likely will request. To the extent that the standards may lead to uniformity in equipment specifications, they will simplify the manufacturer's problem in meeting the requirements of his customers.

Adoption of the recommended standards is voluntary on the part of the law enforcement agencies. The standards are intended to help these agencies in selecting, evaluating, and procuring law enforcement devices. As they are developed, they should promote the production of a large variety of improved devices and processes in the whole area of law enforcement.

The development program resulted from an agreement signed in January, 1971, by NBS and the LEAA establishing the Law Enforcement Standards Laboratory within the NBS Institute for Applied Technology. The laboratory was organized by Paul J. Brown and now is headed by Richard B. Morrison.

Overall direction

The laboratory is initiating and maintaining overall direction over the various projects involved in the program, using the collective resources of NBS in the effort

LAW ENFORCEMENT RADIO—*Dr. Richard Morrison (left), Chief of the Law Enforcement Standards Laboratory, and Marshall Treado, LESL Program Manager for Communications Systems, discuss the merits of a radio used in law enforcement.*

and designating program managers to plan, direct, and evaluate the work of participating laboratories. Involved in the work are laboratories in a number of the NBS divisions and in other Federal Government agencies and the private sector. As standards are developed, they are recommended to the National Institute of Law Enforcement and Criminal Justice to be promulgated for use by local, State, and Federal law enforcement agencies and industry.

Thus far, priorities in the program have called for standards development work in the fields of communications systems and equipment; security equipment or devices to protect against intruders, such as alarm systems and the like; protective equipment and clothing for police and other law enforcement officers; emergency equipment such as sirens and lights; and instruments to detect concealed objects. Also in the initial stages is work to produce standards in three other fields: law enforcement vehicles; police weapons; and buildings for correctional institutions and other law enforcement facilities. These priorities are subject to change pending review of the program by the National Institute of Law Enforcement and Criminal Justice.

NBS scientists explain that the work in developing and making available standards for law enforcement mechanisms involve the following essential steps:

—Performance requirements must be determined. That is, there must be a narrative description of what a device is supposed to do.

—Performance criteria must be developed. In this process, the product attributes that serve as a measure of performance are identified.

—Test procedures must be developed to evaluate the product attributes.

—Performance levels must be set by selecting the test results that correspond to the performance requirements of the user.

—At this point, a tentative or draft standard is prepared, based on the information thus far obtained.

—The tentative standard is reviewed with interested parties, such as representatives of law enforcement agencies, manufacturers, and other experts dealing with these problems. The standard is then ready for the sponsor, that is, the National Institute of Law Enforcement and Criminal Justice

—Developers of the standard must be on the alert for possible revisions as shown by experience, changing technology, inadequacy to meet intended needs, or factors overlooked or passed over originally.

—Finally, means are to be established to assist law enforcement officers and other users of equipment and processes to identify the devices that comply with the standards as developed.

Performance standards

The NBS scientists are concentrating primarily on performance standards rather than design standards, although they will have to be concerned with design standards where interchangeability, or the substitution of one part for another, is required. A performance standard is concerned only with how well a device performs and not how the manufacturer achieves his results, while a design standard gives full details on the required materials, construction, and design of the device.

One of the tasks of the Law Enforcement Standards Laboratory, in directing the development of standards, is to locate centers of competence having the facilities and qualified people to carry on the research and other necessary work. To do this, it looks both within and outside the NBS. It must perform a several-sided role. It must formulate program plans, initiate each program at a center of competence, serve as overall manager of each program, monitor the re-

sults, and with the aid of program leaders draft the standards.

The effort to develop standards for law enforcement results from the general lack of data on the performance of law enforcement equipment and meaningful test methods which can be used to obtain these data.

No capability

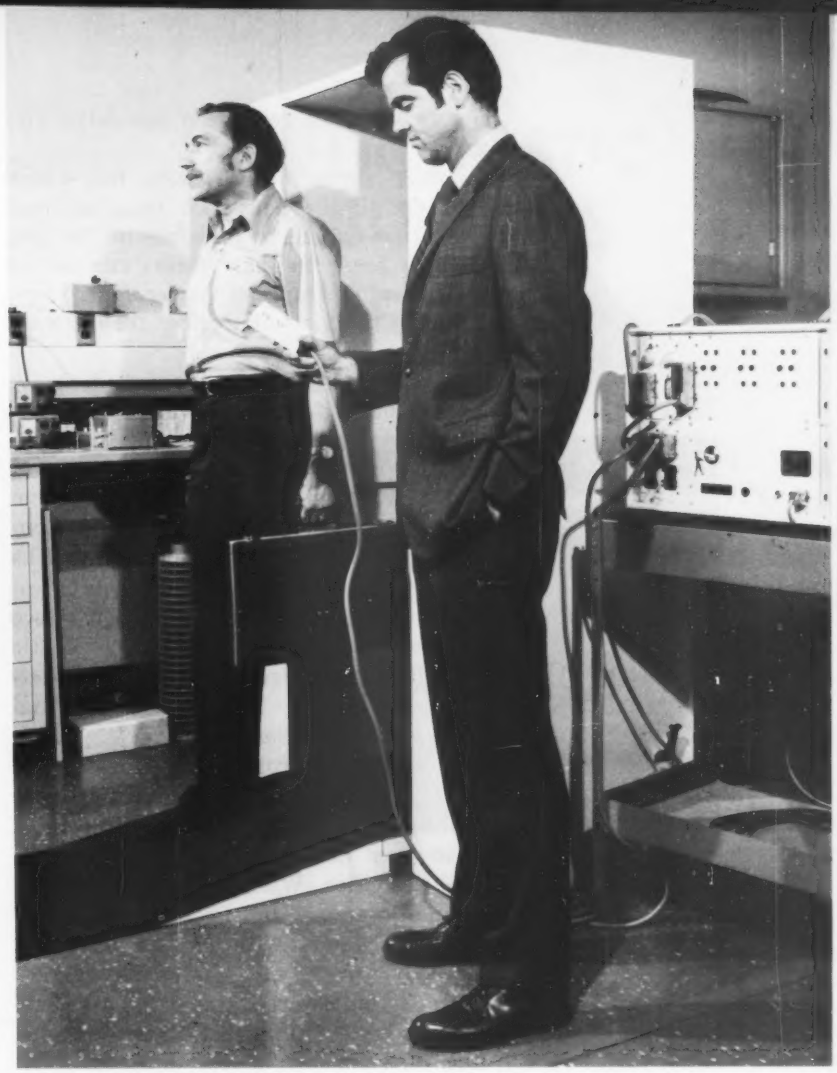
No nationally-accepted standards exist, so equipment specifications now vary greatly from one law enforcement agency to another. Seldom are they based on systematic research or an analysis of user requirements. The typical procurement office has no capability to do this, and the procuring officer may merely copy the specifications for equipment that his opposite number in a nearby jurisdiction reports have performed well. At times, the specifications are suggested by the salesmen for equipment that has already been chosen. The result is that the law enforcement agency may not be provided with the best equipment for its purposes.

Communications Equipment: Many police officials believe that communications equipment is the most critical area requiring standardization. Marshall J. Treado, Program Manager for the communications equipment standardization project, comments that the need for standardization in this area is made more urgent by increasing reliance on this equipment and by the proliferation of complex and expensive communications systems.

As a result, the Law Enforcement Standards Laboratory is placing a high priority on the development of standards for communications systems. Important work is being done in the field of portable and mobile radios, portability of power supplies, voice scramblers, mobile digital communications systems, and automatic vehicle locator systems using mini-computers.

Security Equipment and Systems: One objective of the standards program for security equipment is to reduce the false alarm rate from intrusion-detection systems, which has been reported by some cities to be as high as 97 percent. An effort is being made to develop minimum performance standards that necessitate more effective quality control in manufacturing the subsystems.

An alarm system consists of three elements: the sensor, communications lines, and an annunciator panel at a central location. The sensor may be designed to detect sound, vibration, heat, or motion. Other types of sensors are electromechanical devices, such as magnetic switches, and opto-electrical devices, which use light beams.



WALK-THROUGH TEST—*Malcolm Morse (left), project engineer in the NBS Measurement Engineering Division, performs a walk-through test with a metal weapon detector while Robert Mills, LESL Program Manager for Concealed Objects Detectors, observes the instruments output indicator.*

The security systems program, under Program Manager Marshall Isler, also includes surveillance devices and physical deterrents, such as locks, protective cages, and safes. The Heat Division of the NBS Institute for Basic Standards is developing a performance standard for a "nightscope," a night vision device originally developed by the Department of Defense and made available to law enforcement agencies. This is a hand-held device that intensifies light too faint for the human eye to see and displays an image

similar to a high resolution television picture.

Another surveillance system for which standards will be developed uses infrared illumination, which is invisible to the eye, to light a scene so that officers can see at night by use of a special viewer. Intruders, not having the viewing device, are unaware that they are being observed.

Protective Equipment and Clothing: Topping the list of standards priorities is protective equipment and clothing, designed to protect the officer from a wide range of hazards, such as bullets, bombs, thrown missiles, tear gas, smoke and carbon monoxide, and automobile accidents, as well as against the weather. Specific equipment items include body armor, helmets, face shields, breathing masks, hand-held ballistic shields, hearing protectors, automobile seatbelt systems, high-visibility apparel, and rain wear and uniforms.

The aim of the protective equipment and clothing program is to develop performance standards for equipment that will protect the user from specific threats but not impede normal activities. Work was begun in this area in December by Program Manager Jacob J. Diamond with an evaluation of police body armor, which is on the market in a variety of materials and configurations.

Samples tested for ballistic resistance led to the development of the first standard recommended by the Law Enforcement Standards Laboratory. The standard will be issued by the National Institute of Law Enforcement and Criminal Justice in the near future. Three other standards, now in preparation, are for hearing protectors, breathing masks, and an improved seatbelt system for police vehicles.

Myriad displays

Emergency Equipment: The objectives of the emergency equipment program is to develop standards for emergency equipment used by police officers, a standardized package of emergency equipment for police cars, and procedures for officers in the use of the equipment.

Another purpose is to make the myriad displays of flashing lights and sirens for police vehicles more effective visually and acoustically. At present, many communities design their own light and siren systems, some using a red light, others blue, and still others red, white and blue for police vehicles.

Concealed Object Detectors: The need to detect and identify concealed objects, such as weapons, bombs, and drugs, is leading law enforcement agencies into fields once familiar only to research scientists. Law enforcement operations now use nuclear activation analysis, gas chromatography, mass spectroscopy, magnetometry, infrared photography, and X-ray detectors in this work. Law enforcement agencies need standards to enable them to select sophisticated systems and to understand what performance can be obtained from them.

Initial efforts in this program, which is headed by Robert Mills, are centered on developing standards for metallic weapons detectors, and for X-ray devices.

Minimum acceleration

Objectives in the areas on which standards work is only getting under way are:

Law Enforcement Vehicles: The only performance standards normally specified for police cars are minimum acceleration and braking, although design standards are prescribed. Standards to be developed will cover a broad range of needs. Plans are being developed for air and marine craft standards, and eventually for standards for motorcycles, snowmobiles, and other equipment.

Police Weapons: Plans call for the development of standards for both lethal and nonlethal police weapons, including firearms, nightsticks, and chemical agent devices.

Program Manager Jacob J. Diamond points out that methods are also badly needed to evaluate the nonlethal devices which are being placed on the market in response to the widely felt need for weapons that will extend the range of less-than-lethal force available to law enforcement officers.

Law Enforcement Building Systems: This program, under the direction of Avery T. Horton, involves performance standards for the design and evaluation of all building systems to be used by the law enforcement community, building materials, and institutional furnishings, equipment, and supplies.

The ultimate outcome of these far-reaching and many-sided activities should be a greatly increased capability on the part of law enforcement agencies and officers throughout the nation to control and reduce crime. —*National Bureau of Standards*

DOMESTIC BUSINESS REPORT

- All angles of marine pollution problems
- Population distribution guidelines set
- Reverse trade show innovative approach
- Interstate migration aid in business plans
- Injured industries getting new life
- A U.S. potential—domestic shipping

Marine Pollution: A View From All Angles

Technical, legal and economic ramifications of pollution in the marine industries will be covered in depth in a two-day conference of the International Association for Pollution Control May 11-12 in Washington.

"Problems of the environment can only be solved through a wide-range approach," Thomas F. P. Sullivan, president of the IAPC, explained, "This conference takes an interdisciplinary approach, bringing together experts in each area and representatives of the United Nations and a number of countries."

The conference at the Shoreham Hotel will be open to the public.

U.S. Sen. Howard H. Baker Jr. of Tennessee will deliver the keynote address, opening the conference May 11. Sen. Baker is chairman of the advisory committee on the United Nations Conference, the Human Environment.

The two-day conference covers virtually every aspect of pollution control and environmental problems in the marine industries and brings together leading authorities on the subject from government, educational institutions and the private sector.

Conference topics which will be covered by the Nation's top authorities in the field are:

- Congressional view of marine pollution,
- International law and regulations,
- Domestic marine law and regulations,
- Government research and development for waste treatment,
- Environmental considerations for ports and harbors,
- State of the art analysis,
- Enforcement techniques, practices and procedures,
- Survey of solid waste, hazardous materials, air and noise pollution in the marine field,
- Economic factors affecting marine pollution control markets.

Following the keynote address Capt. Joseph K. Taussig, Jr., (USN Ret), president of Taussig Associates, will lead a discussion on "The Impact of Present and Future International Laws, Regulations, Treaties, and Conventions on the Marine Industry" on opening day.

PHOTO ABOVE—***One of a marine life scene that will be discussed at a forthcoming international conference on marine pollution control problems on an international and multi-discipline level.***

IMPROVE MARINE LIFE—*This Shell sand sink machine is helping improve marine life and eliminate marine pollution by spraying slurry of treated sand and water on to an oil slick. The sand, with the oil adhering to it, sinks to the bottom.*

Other members of the opening panel, which will also give an "Overview of Federal Environmental Laws and Regulations of Interest to the Marine Industry," are Rear Admiral W. M. Benkert, U.S. Coast Guard, and Rodney Duncan of Alcan Shipping, Montreal, Canada.

Government research and development activities, present and future, will be discussed by a panel lead by Dr. Charles C. Bates, Science Advisor to the Commandant, U.S. Coast Guard. Others in the group are Cmdr. William Lehr, chief, Pollution Control Branch, U.S. Coast Guard; W. R. Murden, Corps of Engineers Headquarters, U.S. Army; Richard Dewling, laboratory director, Edison Laboratories of EPA, Joseph Seelinger, U.S. Maritime Administration, and Cmdr. Paul Petzrick, U.S. Navy.

The afternoon session May 11 will be devoted to "Planning, Design and Development Considerations for Ports and Terminals to Minimize Environmental Deterioriation."

Edward Langlois, chairman of Environmental Affairs Committee of the American Association of Port Authorities, will be moderator.

Cmdr. Daniel B. Charter Jr., chief, environmental coordination branch, U.S. Coast Guard, will discuss "Environmental Federal Laws and Regulations for Ports and Harbors."

"Environmental Policy and Our Ports and Harbors," will be covered by Steven D. Jellinek, staff member, Council on Environmental Quality. Other panelists at the afternoon session and their topics are:

Other panelists

Bertrand de Frondeville of A. D. Little, Inc., "Planning of Ports and Harbors," H. J. Hinrichs, assistant chief, design division, Board of Commissioners of the Port of New Orleans, "Local Port Considerations of an Environmental Nature," Armour S. Armstrong, chief, office of ports and intermodal systems, Maritime Administration, "Port Problems in Reception of Oily Waste," Peter Hakman, vice president, Soros Associates, "Environmental Protection for Offshore Marine Terminals," and George T. Wilkie, project engineer, and Dr. H. G. Schwarts, head environmental engineer, Sverdrup and Parcel and Associates, Inc., "Development of the Environmental Facilities at the New Port of Indiana."

Friday's opening session will be devoted to the "State of the Art Analysis of Developments In Shipboarding Waste Treatment Systems." Harold Bernard, chief, Marine Pollution Control Branch, Environmental Protection Agency, will moderate a session in which the following presentations will be made:

Alexander Constant of the Naval Ships Engineering Center, "Navy Development Program Review," Thomas Padden of the Environmental Protection Agency, "Development of Systems for Recreation Vessels Use," Lt. Thomas Scarano of the U.S. Coast Guard, "Analysis of the Coast Guard Program for Development of Waste Treatment Systems," and William Labrizzi, Edison Laboratories of EPA, "Review and Comment on Waste Treatment Techniques for Commercial Vessels."

Sullivan, a Washington attorney, will be moderator of the session "Law, Regulations and Enforcement." Others on the panel will be Cmdr. Al Stirling of the U. S. Coast Guard, J. Gordon Arbuckle of Patton, Blow, Verrill, Brand and Boggs, Wayne H. Verspoor of the Department of Natural Resources, State of Michigan, Louis E. DeCamp of the Environmental Protection Agency, and Russell G. Wayland, chief, conservation division, geological survey, Department of the Interior.

The panel dealing with "Survey of Programs for Control of Solid Waste, Hazardous Materials, Air and Noise Pollution in the Marine Industry," will be headed by D. Barry Dahm, head of the Environmental Systems Department, Cornell Aeronautical Laboratories.

Other panelists and their topics are Dr. Richard E. Hallgren, assistant administrator for environment, National Oceanic and Atmospheric Administration, "The Monitoring, Assessment and Prediction of the Marine Environment," Mark Hooper of the University of Houston, "Equipment Systems for

Management of Solid Wastes on Ships and Platforms," Dr. Hugh Thompson of EPA, "Programs and Methods for Control of Hazardous Materials in Marine Operations," Henry D. VanCleave of EPA, "Programs and Methods for Control of Oil From Ships and Drilling," and Capt. John E. Wesler, U. S. C.G., "Survey of Activities in the Air and Noise Pollution Control Field."

Joseph S. Ives Jr., of LFE-Trapello, will be moderator for the panel dealing with "Economic Factors in Marine Pollution Control," Friday afternoon.

Others and topics are Henry Berler, vice president of Frost and Sullivan, Inc., discussing "Market for Marine Pollution Control Equipments and Services;" F. A. Lewis, senior vice president of Insurance Co. of North America and chairman of the Water Quality Insurance Syndicate, discussing "Insurance for the Marine Industry Against Pollution Accidents."

"Pollution Control Problems in Shipbuilding Facilities and Their Economic Impact," will be the topic of Theadore B. Ray, Newport News SBDD Co., E. Scott Dillon of the Maritime Administration will discuss "Economics of Marine Pollution Control."

Participants in the program will include representatives of the Environmental Protection Agency U.S. Coast Guard, Maritime Administration, Department of the Navy, Department of the Army, Council on Environmental Quality, National Oceanic and Atmospheric Administration, and the National Industrial Pollution Control Council.

Among other organizations cooperating in the two-day presentation of ideas are the American Association of Port Authorities, American Association of Petroleum Geologists, American Waterways Operators, Inc., Boating Industry Association, British Hydromechanics Research Association, National Association of Engine and Boat Manufacturers.

PEOPLE ON MOVE—*Movement of people is the subject of the final part of the report of the Commission on Population and the American Future and various Census Bureau studies. Distribution of population plays an important part in future population problems. National distribution guidelines are needed, says the Commission.*

Population Report Outlines Means To Stem Rush To Cities

A "growth center strategy" to stem the flow of internal migration from economically depressed farm areas to bulging big cities was recommended by the Commission on Population Growth and the American Future.

The Presidential Commission, headed by John D. Rockefeller III, also urged the establishment of national population distribution guidelines, greater government control over land-use planning and development, elimination of racial and economic segregation, and creation of an Office of Population Growth and Distribution within the Executive Office of the President.

In the third part of its final report, the Rockefeller Commission covered internal migration, urban development and immigration. It noted that three important shifts in population are resulting in the emergence of an "almost totally urban society."

These important shifts are:

—A movement from low income rural, and economically depressed areas toward metropolitan areas,

—A movement of metropolitan population from older and often somewhat climatically less hospitable centers in the northeast and midwest, toward the newer, climatically favored centers of the south and west.

—An outward dispersion of residents from the cores to the peripheries of metropolitan areas.

To cope with the new "totally urban society" the Commission recommended that the federal government develop a set of national population distribution guidelines to serve as a framework for regional, state and local plans and development.

"Regional, state and metropolitan governmental authorities should act in cooperation with local governments, "the Commission asserted, "to conduct needed com-

prehensive planning and action programs to achieve a higher quality of urban development."

"The process of population movement should be eased and guided," the Rockefeller panel concluded, "to improve access to opportunities now restricted by physical remoteness, immobility and inadequate skills, information, and experience."

The Commission, created by Executive Order of President Nixon, studied the population problem for nearly two years. Its earlier reports dealt with health and day care center, contraception and the general population problem.

"Accommodating future national growth is primarily a job of accommodating future suburban growth and of sensibly guiding the transformation of currently rural territory to urban uses as metropolitan areas physically expand," the Commission concluded in the final part of its report.

To anticipate and guide future urban growth, the Commission recommended comprehensive land use and public facility planning on an overall metropolitan and regional scale.

The teritory of urban regions is expected to double between 1960 and 1980, and to grow at a slower rate after that according to the panel's study.

"This means the land we occupy in the year 2000 is largely being settled now. If we settle it badly now, we shall endure the consequences then."

Redistribution of population, the Commission asserted, has "left behind undereducated, underskilled persons in locales that have fallen into economic and social decline."

Not all suffer

"This is not to suggest that all rural places are suffering from population decline and economic obsolescence," the Commission added, "But the economic development of the United States can be traced through the impact it has had on the distribution of population in this country."

In chronically depressed areas, the Commission continued, it may sometimes be true that the prudent course is to make the process of decline more orderly and less costly—for those who decide to remain in such areas as well as for those who leave.

This would hold true if economic analysis discloses that no reasonable amount of future investment could forestall the necessity for population decline as an adjustment to the decline in job opportunities.

In that event, the purpose of future investment in such areas should be to make the decline easier to bear rather than to reverse it.

"To improve the quality and mobility potential of individuals," the Commission recommended that future programs for declining and chronically depressed rural areas emphasize "human resource development."

To promote the expansion of job opportunities in urban places located within or near declining areas and having a demonstrated potential for future growth, the Commission suggested the development of a "growth center strategy."

A growth center strategy could be reinforced by assisted migration programs that would encourage relocation to growth centers as an alternative to big cities.

Growth centers could also provide many of those who are unemployed or underemployed in declining areas with an opportunity to commute to new or better jobs.

In such circumstances, more effective employment could be achieved without altering the living environment. Equally important, such growth centers would provide alternative destinations for urban migrants preferring small town or city living.

The types of growth centers envisioned are expanding cities in the 25,000 to 350,000 population range whose anticipated growth may bring them to 50,000 to 500,000. Somewhat lower and higher limits should be considered for the sake of flexibility.

Only those cities that could be expected to benefit a significant number of persons from declining regions, as well as the unemployed within the center, should be eligible, the Rockefeller panel stressed.

MORE FOOTPRINTS—*This little fellow will grow up in a Nation of bulging population and the problems that go with it. Helping him achieve an environment that includes "quality of life" is the purpose of the Population Commission study.*

Projected Rank Of 10 Most Populous States Depending On Differing Assumptions About Population Fertility And Migration

Amount of Increase 1970-1990*

	1970 Totals	Series IC	Series IIIC	Series IE	Series IIIE
1 California	19,953,000	10.6 million	7.7 million	8.5 million	5.9 million
2 New York	18,241,000	4.7 "	6.5 "	3.3 "	5.0 "
3 Pennsylvania	11,794,000	1.6 "	2.3 "	0.7 "	1.4 "
4 Texas	11,197,000	4.3 "	4.4 "	3.2 "	3.3 "
5 Illinois	11,114,000	3.4 "	3.6 "	2.4 "	2.6 "
6 Ohio	10,652,000	3.0 "	3.1 "	2.0 "	2.2 "
7 Michigan	8,875,000	3.2 "	3.2 "	2.3 "	2.3 "
8 New Jersey	7,168,000	3.0 "	2.1 "	2.3 "	1.5 "
9 Florida	6,789,000	3.5 "	1.5 "	2.8 "	1.0 "
10 Massachusetts	5,689,000	1.7 "	1.9 "	1.2 "	1.4 "

* Series IC—fertility rate of 2.78 children per woman and interstate migration
Series IIIC—fertility rate of 2.78 children per woman and no interstate migration
Series IE—fertility rate of 2.11 children per woman and interstate migration
Series IIIE—fertility rate of 2.11 children per woman and no interstate migration
All states except California, New York, Michigan and Massachusetts could change their rank by 1990.

Interstate Migration Big Factor In Business Future Plans

California, which carried off the title as the most populous state in the United States in 1970 (19,953,000 persons), would gain 10,600,000 persons by 1990 with present migration rates and the Census Bureau's highest estimated fertility rate. But, it would gain only 7,700,000 persons if interstate migration stopped.

Reverse situation

On the other hand, New York State, recording a population of 18,241,000 persons in the 1970 Census, could gain 4,700,000 with continued interstate migration. But, it would grow by 6,500,000 persons in the absence of interstate migration (still assuming the highest fertility rate projected by the Census Bureau).

These two examples point out the importance of migration among the States in determining the rise or fall of state populations. Just what could happen to state populations between now and 1990 if there is no interstate population movement is illustrated by tables just published by the Census Bureau of the Social and Economic Statistics Administration of the Commerce Department.

Two assumptions about future fertility are combined with two premises about interstate migration in "Preliminary Projections of the Population of States, 1975 to 1990," Series P-25, No. 477. (Each projection assumes no immigration from abroad.)

A fertility rate of 2.11 children per woman, the minimum necessary for replacement of existing population was projected with patterns of migration reflecting recent experience (Series I-E).

In another table (III-E), the same fertility rate is combined with the premise that there would be no net interstate migration.

The same migration assumptions were applied to a fertility rate of 2.78 children per woman (Series I-C and III-C).

In each case, the states now experiencing substantial in-migration would grow by 1990, while many with outward movements would gain if migration stopped.

For example, West Virginia had a 1970 population of 1,744,000. If outward movement continues, it would lose 10 percent by 1990 at the lower fertility rate, and 4 percent with the higher one. But, it could gain between 200,000 and 400,000 persons if by 1990 interstate migration stopped.

Although the ten most populous states according to the 1970 Census will probably be the same ones by 1990, the state projections do reveal several shifts possible in the ranking by size of population in 18 years.

Texas would replace Pennsylvania in third spot—the latter state dropping to fifth or sixth place, depending on the projection table, above or below Ohio. Florida would pass New Jersey if recent interstate migration patterns continue.

Only California, New York, Michigan and Massachusetts would retain their present population ranking positions.

In addition to migration rates, a slight change in the number of births per woman in the United States will also have an impact on the U.S. population, the Census Bureau study reveals.

Several of the smaller western states would be expected to move higher on the state population ranking list under either of the calculations.

Nevada, for example, would have an increase of 85 percent from its 1970 population of 489,000 with migration and the higher fertility rate.

Several other states, including Maryland, Arizona, California and Florida, would experience population increases over 50 percent with high fertility combined with continued in-migration.

—Census Bureau

HIRE

A Veteran:

Construction worker
Electronics technician
Electrician
Draftsman
Cook
Aircraft mechanic
Medical technician
Policeman
Computer programmer
Nurse
Administrator

He's Home.

Home with maturity, abilities and ambition.

Veterans have experience in dozens of fields. And hundreds of specialties . . . many of them hard to find. Trade skills. Technical skills. Professional and supervisory skills.

Call or visit your local state employment service.

Cleveland Show To Feature Goods Firms Want To Buy, Instead Of Sell

Cleveland's third annual "trade show in reverse" is expected to draw 3,000 small businessmen from throughout Ohio and neighboring states and 100 exhibitors representing government, the private sector and the university community.

The show will be April 19 and 20 at the Cleveland Convention Center. John L. Jenkins, director of the Office of Minority Business Enterprise, will present awards to past participants in the show at a dinner April 19.

'Trade show in reverse'

The Cleveland Business Opportunities Exposition is billed as a "trade show in reverse" because exhibitors display the goods and services they wish to purchase during the year rather than the products they sell.

This unique exposition offers small businessmen, particularly minority-owned small business firms, an opportunity to get a piece of the action in bids on federal and other government contracts and in contracts with larger firms in the private sector.

Products and services scheduled for display during the two-day exposition, include photography, equipment rental, office supplies, window cleaning, wiping clothes, building maintenance, chemical cleaners, and packaging.

Also in the "wanted to buy" displays will be dry cleaning services, catering services, refuse hauling, solvents, delivery services, gloves and raincoats, fabricating, pipe bends, de-greasers, rubber stamps and pads.

Twenty-five of the exhibitors will be federal agencies such as the Department of Defense, Department of Commerce, Small Business Administration, General Services Administration, Department of Housing and Urban Development, National Aeronautics and Space Administration and the Postal Service. Representatives of these agencies will have bid packages and competitive bid information.

Non-federal exhibitors include the State of Ohio, City of Cleveland, Cleveland Transit System, Case Western Reserve University, Cleveland State University and Cuyahoga Community College.

Displays from the private sector will include the Building Trades Employers Association, Smaller Business of America and the Purchasing Agents Association. Among the private industries exhibiting items they wish to purchase will be IBM, United Air Lines, PPG Industries, Goodyear Aerospace, General Electric, Ford, Westinghouse, Western Electric, Otis Elevators, Sears, Gould, Inc., Union Carbide, Harshaw Chemical, Picker Corp., Eaton, TRW, Continental Teledryne, Empire Plow, Higbee's, May Co., and American Ship.

The "trade show in reverse" is sponsored by 34 organizations, led by the Greater Cleveland Growth Corp.

—Office of Business Services

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government now have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints—the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

AIDING INJURED—*Ground breaking for a new float glass plant of ASG Industries, Inc., at Kingsport, Tenn. From (left) are Nelson Loud, chairman; Warren Anschuetz, Prudential Life Insurance Co.; J. C. Knochel, president of ASG; George Seiferid, president, Toledo Engineering Co.; U. S. Rep. James T. Quillen; Andrew L. Gray, director, Office of Trade Adjustment Assistance, participating in the Federal program. The new plant is being built with the help of a government loan.*

Technical Assistance And Loans Give Import Injured Industries New Start

A textile firm, injured by imports, is diversifying into the computer service business with the aid of a $150,000 tax refund obtained by carrying operating losses back five years instead of the usual three year limit.

A new process

A manufacturer of sheet glass, also hurt by foreign competitors, is switching from the drawing to the float process of glass manufacturing with the help of a government loan. The new process will manufacture glass one third cheaper.

Both firms are using services of Commerce's Office of Trade Adjustment Assistance. The agency can provide technical assistance and loans to firms that have been certified by the Tariff Commission as seriously injured by growing imports resulting from a U.S. tariff reduction.

Since Nov. 1969, in addition to individual firms, entire industries such as sheet glass, barber chairs, pianos and marble-travertine have been certified by the Tariff Commission as eligible for assistance.

The textile firm did not need a direct loan or technical assistance to diversify into computer services. It knew what it wanted to do and had the capability to make a fundamental change in the nature of its business. All it required was a little additional capital which the tax refund provided.

The sheet glass manufacturer's situation was more complicated. The firm needed additional capital for the process change and also had to obtain a license to technology owned by British interests. In addition, it owed a substantial debt to a U.S. life insurance company that had financed its operations in the past.

The company's adjustment plans call for a $4 million direct loan from the government, a new infusion of $1 million in equity capital and an additional loan of $7 million from the insurance company.

In another case, a small manufacturer of women's dress shoes has benefited from all three forms of adjustment assistance. It received a small preproposal grant for technical assistance to develop a play for modernizing the plant layout and processes, improving the firm's marketing, and scheduling some production for inventory, enabling faster delivery instead of producing only on the basis of orders received.

Under the loss carryback provision the firm was able to obtain a small tax refund. It received a $1.4 million direct loan under the assistance program. In addition, a continuing technical assistance program financed by the Economic Development Administration will make possible management and engineering improvements.

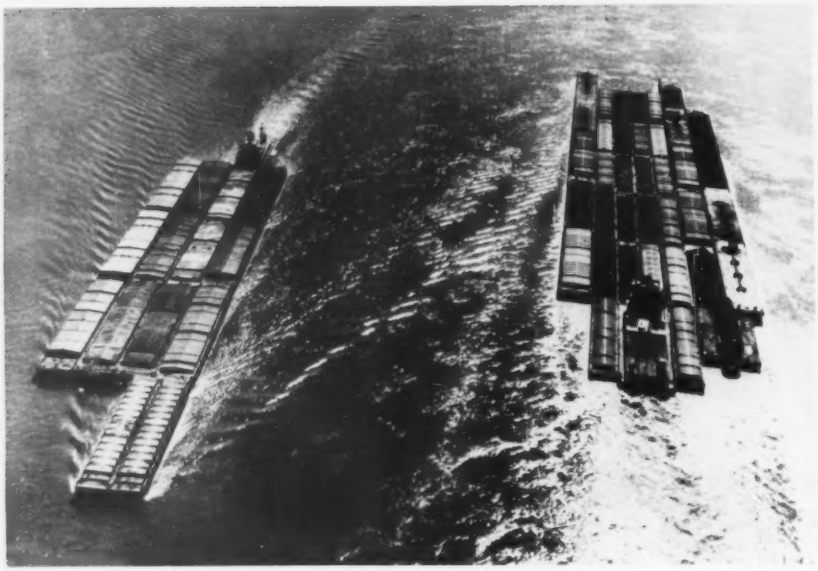
After an industry or firm has successfully petitioned the Tariff Commission, firms may apply individually to Commerce for financial, technical or tax assistance. The Department of Labor has a similar program for employees hurt by imports.

The applicant's position and prospects are then is studied by the office of Trade Adjustment Assistance. Once certified by Commerce, the firm prepares a proposal outlining what it will do to become competitive again.

In appraising a proposal the main question is whether it has a reasonable chance for success. Will it actually reduce costs, increase sales and enable the firm once more to operate profitably? Proposals are not expected to be 100 percent guarantees of success—merely reasonably likely to succeed.

If the proposal meets standards, loan documents are drawn up and the applicant gets his money, either by direct government loan or through a private loan backed by the government. Recipients report regularly to Commerce on the progress and problems encountered in achieving the adjustment objectives.

—Bureau of Domestic Commerce



NAVIGATOR—*The towboat Navigator with a 37-piece tow on the Mississippi River near Caruthersville together with a sister towboat hauls some of the 550 million tons of cargo which moves on inland waterways of the United States each year.*

Domestic Shipping Industry Potential To Be Aided By National Conference

Domestic shipping in the United States and what needs to be done to develop it to its full potential will be the subject of a national conference April 30-May 4 in St. Louis, Mo.

Long-range program

Known as the National Planning Conference on Domestic Shipping, the two-day session is being sponsored by the Maritime Administration to map out a long-range program for the agency to aid and promote all segments of the domestic shipping industry—inland waterways, Great Lakes, and domestic ocean shipping.

More than 150 key leaders from the domestic shipping industry are expected to attend, according to A. E. Gibson, Assistant Secretary of Commerce for Maritime Affairs.

In addition, high-ranking officials from government agencies concerned with this area of the shipping industry will attend.

"This conference," Mr. Gibson explained, "grew out of MarAd's new emphasis on carrying out its mandate to promote the U.S. domestic shipping fleet."

Gibson pointed out that the promotion of domestic shipping was given new impetus by President Nixon's maritime program, which is opening several beneficial programs to operators in these trades.

The Maritime Administration now has a new Office of Domestic Shipping concentrating its efforts in this field.

The Assistant Secretary noted that new long-range programs responsive to the needs of the domestic shipping industry will come out of the conference and can be initiated by MarAd through its domestic shipping office.

The Commerce Department official also announced the formation of a Steering Committee to establish the ground rules for the conference. Members of this group, which recently held its first meeting, are: Braxton B. Carr, President of The American Waterways Operators, Inc.; John W. Creedy, President of the Water Transport Association; Alfred Maskin, Executive Director of the American Maritime Association; Raymond T. McKay, President of the Marine Engineers Beneficial Association District #2; James J. Reynolds, President of the American Institute of Merchant Shipping; and Vice Admiral Paul E. Trimble, President of the Lake Carriers' Association. Representing MarAd on the committee are Deputy Assistant Secretary Robert J. Blackwell and Burton T. Kyle, Chief of the Office of Domestic Shipping.

Mr. Blackwell is also General Chairman of the conference.

At its initial meeting the Steering Committee approved the division of the conference into four panels covering the fields of operations and facilities, finance and insurance, legislation and regulation, and research and development. Sub-panels of these groups will consider specific proposals for inclusion in MarAd's long-range program and their relative priorities.

The Steering Committee also named co-chairmen for the panels. They are:

Panel 1 (Operations and Facilities): Dudley Burchard, Vice President—Marketing, Matson Navigation Co., and Peter Fanchi, Jr., President, Federal Barge Lines.

Panel 2 (Finance and Insurance): Thomas B. Crowley, President, Crowley Launch and Towboat Co., and Adrian Hooper, President, Interstate Oil Transport Co.

Panel 3 (Legislation and Regulation): John McConnell, Vice President-Legal, Sea-Land Service, Inc., and Charles Smith, Partner in the law firm of Phipps, Smith and Herz.

Panel 4 (Research and Development): Campbell Elliott, President, The American Ship Building Co., and Jack Geary, Vice-President Operations, The Ohio River Co. —*Maritime Administration*

Largest Black Population Business Will Find In The 'Empire State'

Black market seekers can look to New York which led the States of the Union in the number of Negroes in its population in 1970, according to Commerce's Bureau of the Census.

Population report

A report on general population characteristics prepared by the Bureau showed that in 1970 there were 2,168,949 Negroes in New York State, or 11.9 percent of the State's population of 18,236,967.

Other States with a Negro population of one million or more, and the percentage in their total population, includes Illinois, 1,425,674, 12.8 percent; California, 1,400,143, 7 percent; Texas, 1,399,005, 12.5 percent; Georgia, 1,187,149, 25.9 percent; North Carolina, 1,126,478, 22.2 percent; Louisiana, 1,086,832, 29.8 percent; Florida, 1,041,651, 15.3 percent; and Pennsylvania, 1,016,514, 8.6 percent.

States and areas with high Negro populations, and the percentage of Negroes in the total, included the following: Michigan, 991,066, 11.2 percent; Ohio, 970,477, 9.1 percent; Alabama, 903,467, 26.2 percent; Virginia, 861,368, 18.5 percent; Mississippi, 815,770, 36.8 percent; South Carolina, 789,041, 30.5 percent; New Jersey, 770,292, 10.7 percent; Maryland, 699,479, 17.8 percent; Tennessee, 621,261, 15.8 percent; and District of Columbia, 537,712, 71.1 percent.

The census figures showed that in 1970 no State in the Union had a Negro population of less than 1,000 except Vermont, whose Negro population was only 761 or two-tenths of one percent of the total.

Growing outmigration

Although in recent decades there has been a growing outmigration of Negroes from the South to all parts of the Nation, in 1970 11,969,961 of the 22,580,289 Negroes in the U.S., or more than half of the total, remained in the South.

The Negro population represented 19.1 percent of the total population of the South, while for the Nation as a whole the ratio of Negroes to the total population was 11.1 percent. Incidentally, the South, with a population of 62,795,367, was the most populous region of the country.

For other regions of the Nation, the total population in 1970, the number of Negroes in the population, and the percentage of Negroes in the total population, are: North Central, 56,571,663; Negroes, 4,571,550; percentage of Negroes, 8.1; Northeast, 49,040,703; Negroes, 4,344,153; percentage of Negroes, 8.9; and West, 34,804,193; Negroes, 1,694,625; percentage of Negroes, 4.9.

Indian population

In 1970, there were 792,730 American Indians in the country, of whom 390,755, or nearly half, lived in the West. States with the largest Indian populations were: Oklahoma, 98,468; Arizona, 95,812; California, 91,018; New Mexico, 72,788; North Carolina, 44,406; Washington, 33,386; South Dakota, 32,365; New York, 28,355; Montana, 27,130; and Minnesota, 23,128.

The Japanese population totaled 591,290, of whom 217,307 lived in Hawaii and 213,280 in California. The Chinese population totaled 435,062, of whom 170,131 lived in California, 81,378 in New York State, and 52,039 in Hawaii. The Filipino population total was 343,060, of whom 138,859 lived in California and 93,915 in Hawaii.

—Bureau of the Census

Race Of The Population For Regions: 1970

United States Regions	Negro And Other Races					Percent Distribution				
								Negro And Other Races		
	Total	White	Total Minority	Negro	Total Other	Total	White	Total	Negro	Other
United States	203 211 926	177 748 975	25 462 951	22 580 289	2 882 662	100.0	87.5	12.5	11.1	1.4
REGIONS										
Northeast	49 040 703	44 310 504	4 730 199	4 344 153	386 046	100.0	90.4	9.6	8.9	0.8
North Central	56 571 663	51 641 183	4 930 480	4 571 550	358 930	100.0	91.3	8.7	8.1	0.6
South	62 795 367	50 420 108	12 375 259	11 969 961	405 298	100.0	80.3	19.7	19.1	0.6
West	34 804 193	31 377 180	3 427 013	1 694 625	1 732 388	100.0	90.2	9.8	4.9	5.0

Nationwide Fire Fighting Services Subject Of Study

Development of a national system of collecting data on fire fighting services would require a standardized model for reporting facts on a nationwide basis, the Census Bureau reported.

A standardized model would lead to improved accountability and understanding of resource allocation as well as comparability among fire fighting services, according to a new Census study.

Other types of information needed for a national fire fighting data system, according to the Census report, are cost of local fire fighting services, personnel requirements and equipment inventories and a directory of fire service agencies that would expand the present listings by the National Fire Protection Association to include small places and fire districts.

Single copies of the report, "National Data Needs: Fire Service Statistics" are available for 30 cents each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, or from Commerce field offices in major cities.

—Census Bureau

National Policy On Disaster Loans Takes On New Look

The U.S. Small Business Administration has changed its national policy on disaster loans to expedite repair of damaged homes and businesses.

Thomas S. Kleppe, SBA Administrator, said that upon request SBA disaster loan payments will be made payable to the borrower and his bank, or to all three.

Kleppe said that in the past SBA disaster loan checks have been made payable only to the borrower. "In many cases," Kleppe said, "it was difficult for the borrower to obtain a contractor for repair work without prepayment of at least part of the cost. Many borrowers were unable to do this, and the result was serious delay in getting the work done.

Contractor is payee

"Now, under our new policy with the contractor listed as a payee, he will be assured of payment, and a bank listed as payee, will be more inclined to provide interim financing, if that should be necessary."

SBA currently is administering 50 disasters nationwide and last year made over 96,000 disaster loans totaling over $385 million.

—SBA

Calendar For Businessmen

April 18-19 — Washington — Sixth annual International Water Symposium meeting at Statler Hilton Hotel. For information, the DXM Co., Inc., 237 E. Rocks Rd., Norwalk, Conn. 06851.

April 19-20 — Cleveland, Ohio — Third annual business opportunity exposition at Cleveland Convention Center, 1220 E. 6th St., Cleveland, sponsored by the Greater Cleveland Growth Association and the City of Cleveland.

April 19-21 — Houston — National Pollution Control Conference and Exposition annual meeting. For information, Aubrey LaFargue, general chairman, P.O. Box 22372, Houston, Tex. 77027.

April 20-22—Denver—First national conference on alternative methods of financing minority business, co-sponsored by the Office of Minority Business Enterprise and the Colorado Economic Development Association. For information contact Allan Stephenson, OMBE, Washington. Phone: 202-967-2367.

April 25-28—Orlando, Fla.—Business Opportunities Conference, sponsored by Florida Industrial Exposition. For information, DeFarest A. Long Jr., 3555 Maguire Blvd.,Orlando, 32803.

April 26-28 — Detroit — North American Snow Conference, American Public Works Association. For information, R. D. Bugher, 1313 E. 60th St., Chicago, 60637. Phone: 312-324-3400.

April 27—Chicago—Space Age Industries and Environment, conference sponsored by Chicago Economic Development Corp. For information, Charlie Soo, Phone: 312-368-0011.

April 28—Chicago—State of the Black Economy, seminar sponsored by Chicago Economic Development Corp. For information, Charlie Soo, Phone: 312-368-0011.

May 7-10—Hartford, Conn.—Annual Conference, American Industrial Development Council. For information, AIDC, Boston. Phone: 617-536-6378.

May 11-12—Washington—Second annual conference on Pollution Control in the Marine Industries, sponsored by the International Association for Pollution Control. For information, IAPC, Suite 303, 4733 Bethesda Ave., NW., Washington, D.C. 20014.

VISIT USA Outlets Abroad

To help the receptive segment of the U.S. travel industry identify potential customers, United States Travel Service directors abroad develop lists of agents and operators in their territories who actively promote U.S. travel.

A 71-page sales guide, containing the names and addresses of 323 such travel outlets in 50 countries, is available free of charge from: the Marketing Division, United States Travel Service, Room 1865, U.S. Department of Commerce, Washington, D.C. 20230.

Title of the guide is *VISIT USA Outlets Abroad.* *—USTS*

SCIENCE & TECHNOLOGY REPORT

- Radar to measure rainfall in big lake study
- Earlier warning devices available can save lives
- New means to stimulate industrial R&D sought
- Treated sewage seen food for commercial shellfish
- Nationwide weather services plan further expansion
- Patents of special interest

Radar To Measure Rainfall In Big Lake Study

The first step has been taken in a massive information collection program on the water resources of the Great Lakes that will be of extensive potential value to shipping on the lakes and to the industrial, business, and social life of the lake region.

A special radar system, together with a back-up rain gage network, went into operation early this month to measure rainfall over Lake Ontario and its basin. This arrangement permits a more accurate rainfall measurement than has ever been possible before.

The radar and rain gage network is part of the information collection program known as the International Field Year for the Great Lakes, a joint venture of the United States and Canada, involving the use of approximately equal resources on both sides of the border. The program is to continue through 1975, and will require an outlay by the two nations of approximately $15 million.

On the part of the United States, the leading Government agency in the effort is Commerce's National Oceanic and Atmospheric Administration (NOAA). Other principal Federal agencies in the work are the Departments of Defense, Interior, and Transportation, the Environmental Protection Agency, and the National Science Foundation. Also involved are the New York State Department of Environmental Conservation, and about a dozen U.S. universities.

PHOTO ABOVE—***One of two major U.S. oceanographic ships to participate in the lakes project is the Researcher equipped with an advanced data acquisition system. Its task will include collecting water samples to determine biological and chemical constituents, measuring water temperature and ascertaining the direction of currents.***

The Canadian share of the work is being undertaken through a partnership of the governments of Canada and Ontario, with several governmental agencies and seven universities participating.

The mammoth project, the most far-reaching and intensive of its kind ever undertaken, centers on Lake Ontario. Some 600 scientists and technicians of the two countries will be engaged in gathering data about the 30,000 square mile drainage basin of the lake, which spans an area of 7,340 square miles. Ontario, the smallest of the Great Lakes, was chosen because it is typical of the others with the exception of Erie, which presents a special case.

The vast body of material obtained on the Ontario basin will relate to the quality of the water, and

the extent, distribution, and effects of pollution, as well as to the quantity of water, its availability, and its effective use under different conditions and in different seasons. The study of Ontario will serve as a model for water resource management for the other Great Lakes. The information obtained will be useful for all large lakes in the world.

In collecting data, the scientists will use ships, aircraft, buoys and towers, rawinsonde or balloon-launching stations, and weather stations, in addition to the radar and rain gage mechanism.

The U.S. and Canada each will collect portions of the total volume of data. However, two data banks are being established, and each will contain a complete file of the information obtained, with joint analysis and access to the data.

The schedule of work calls for intensive data collection through 1972, completion of field work, data reduction and initial analyses in 1973, and further analysis assessment and publication in 1974 and 1975.

RAPID SURVEYOR—*Among 11 aircraft employed by the U. S. in the current Great Lakes study will be a technologically advanced RB-57 reconnaissance plane carrying observers and instrumentation over Lake Ontario as required by the various scientific projects. Aircraft permit rapid survey of Lake-wide conditions such as cloud cover, surface temperature, and ice cover as well as assessment of some conditions over the land portion of the basin, such as vegetation cover and soil moisture, and meteorological data at flight altitude.*

Development of plans for the undertaking is the responsibility of a joint U.S.-Canadian Steering Committee. A Joint Management Team, composed of scientists and administrative personnel, provides operational support and liaison with scientists working on the project.

As the first move in the data collection operation, U.S. radars located at Buffalo and Oswego, N.Y., are tied in with Canadian radar near Toronto to cover the entire lake watershed. The Buffalo radar is operated by the National Weather Service, an arm of NOAA, and has been specially instrumented to carry out the work. At the other end of the lake, and about eight miles south of Oswego, a new radar has been installed and is operated by the State University of New York at Oswego under contract with NOAA. Each radar measures precipitation for a radius of up to 120 miles from its location.

The radars will measure amounts of rainfall at ten-minute intervals, in inches per hour, throughout the areas covered, which will be the southern and western part of Ontario and its basin for the Buffalo radar, and the eastern part for the Oswego radar. Rainfall rates will be recorded at sixteen levels of intensity. The data obtained will make it possible to compute with great accuracy the amount of rain-

WAVE MEASURING—*The lake survey vessel* Shenehon *will be employed in the Great Lakes study to set out buoys by which it will be possible for scientists of the project to measure waves. U.S. headquarters opens in Rochester, N.Y., this month.*

fall at any given point in the lake or its basin. The data will be stored on magnetic tape, with a 16-mm film backup.

To support the radar, a network of 16 automatic recording precipitation gages has been established south of Rochester, N.Y., in a square of 7.5 miles on a side. These gages measure actual precipitation, rain or snowfall, and will be used continuously to check the radar calibration.

Pollution problems

Highly accurate knowledge of the amount and intensity of rainfall on the lake and its watershed over a period of time will be useful in dealing with problems of pollution, erosion, and water supply management. Precipitation intensity is related to surface runoff, and is associated with water pollution. As streams and rivers rise from heavy downpours, they carry heavier loads of sedimentation and pollutants from various sources. Scientists want to learn more about what materials are picked up in these runoffs, and under what circumstances they are picked up. Ultimately, they hope to be able to make better predictions of the results of different rainfall rates.

Water supply management will be improved as scientists understand better the dynamics of water balance in the lake basin. This understanding is dependent on thorough information on precipitation, coupled with other contributing factors such as inflow from the Niagara River and tributaries such as the Genesee River, outflow through the St. Lawrence, evaporation, and the contribution from groundwater in the basin. Careful calculation of all this information will enable hydrologists to better understand the atmosphere and terrestrial water balance, making possible better water management for industrial and domestic use, power, navigation, recreation, and shoreline use.

Other phases of the data collection work will get under way later this month with the opening at Rochester of U.S. headquarters for the International Field Year. The headquarters will be equipped with electronics laboratories, a field data center, working areas for visiting scientists, and will be staffed mainly by NOAA personnel, with some people from the U.S. Air Force and Coast Guard sharing in the work load.

About this time, the two major U.S. oceanographic ships to participate in the project, the *Researcher* and the *Advance II*, will arrive for the tasks assigned to them, which will include collecting water samples to determine biological and chemical constituents, measuring water temperatures at different levels, and ascertaining the direction of water currents, wind velocities, and air temperatures.

Also the lake survey vessel, *Shenehon*, will make its first cruise to set out buoys to measure waves. Aircraft operations will begin with the appearance of three planes for their share of the work. Use of aircraft will permit rapid survey of lake-wide conditions such as cloud cover, surface temperature, and ice cover, as well as assessment of some conditions over the land portion of the lake basin, such as vegetation cover and soil moisture, and meteorological data at flight altitude.

Extensive data

The full complement of equipment in the extensive data collection operation is expected to include the following: five oceanographic ships, of which Canada will supply three; 14 aircraft, 11 of which will be provided by the U.S.; 21 buoys, of which Canada will furnish 11; a number of special towers to be installed in the water and on the land; and various other devices, including the launching by the rawinsonde stations of balloons to obtain meteorological information on the upper atmosphere.

The mass of information to be obtained will hold a high potential for the future of the Great Lakes region, with its vast population and complex of industries. The Great Lakes constitute the largest chain of fresh water reservoirs in the world, holding 5,473 cubic miles of water, about 20 percent of all fresh water in the lakes and rivers of the earth. —*NOAA*

Herring Quotas Set To Stop Overfishing Current Stocks

Previously unregulated herring fishing in the Northwest Atlantic will be protected by a national quota system if recommendations of the International Commission for the Northwest Atlantic Fisheries are ratified by member nations.

Delegates to a recent special commission session in Rome held in response to growing concern over declines in herring, agreed upon 1972 quotas for each of the nations participating in fisheries supported by the Nova Scotia, Georges Bank, and Gulf of Maine herring stocks.

In addition a minimum size limit of nine inches was proposed for herring caught in all but one small portion of the herring fishery within the area.

William M. Terry, Director of International Affairs for Commerce's National Oceanic and Atmospheric Administration, and head of the U.S. delegation to the special session, pointed out that this is the first time agreement has been reached on national quota allocations in a multilateral fisheries management body.

For several years, Terry said, studies of herring stocks in the Northwest Atlantic have indicated substantial overfishing and a need for conservation measures.

The agreed national allocations would mean for most nations a 1972 catch sharply below their 1971 catch, he pointed out. However, the reductions in U.S. catches would be considerably less than

those for other nations fishing the same stocks.

Members of the Commission besides the U.S. are the United Kingdom, Iceland, Canada, Denmark, Spain, Norway, Japan, Portugal, Italy, France, the Federal Republic of Germany, the USSR, Poland, and Romania.

—NOAA

Earlier Warning Devices Available Can Save Lives During Major Storms

Ten years ago last month, a vicious five-day winter storm struck the east coast of the United States resulting in 33 deaths, 1,252 injuries, and $200 million in property damages from Florida to New England. Rampaging wind and water destroyed 1,793 dwellings alone.

Marine climatologists called it one of the most damaging extratropical storms ever to strike the U.S. coastline. Tides reached record levels.

If such a storm were to strike today, and it is estimated from climatological records that the nation has about one every 20 years, new prediction procedures developed by the National Weather Service of Commerce's National Oceanic and Atmospheric Administration, since then can be expected to save many lives and property damage.

The first of these, begun in 1969, is a winter-storm reconnaissance program conducted by the Weather Service with the aid of NOAA's Satellite Service, National Data Buoy Center, and Research Flight Facility, and the Air Force, Navy, and Coast Guard.

In this program, weather observations are taken in critical portions of the ocean off the east coast by satellites, reconnaissance aircraft, ships at sea and a giant instrumented buoy anchored 100 miles east of the Virgina-North Carolina border.

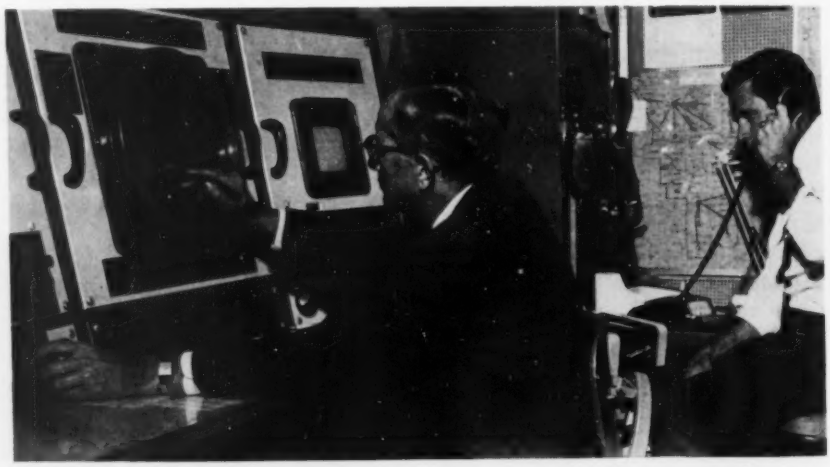
Before this program went into effect, relatively little information was available in the ocean area where some of the most crippling storms are spawned and grow. Still more valuable data will become available later this year when a weather-watching radar is installed aboard the Coast Guard's "Ship H" stationed 200 miles east of Chincoteague, Va.

Such observations, taken in the heat of a storm, are processed by computers of the National Meteorological Center at Suitland, Md., and converted into forecasts of storm growth and track so that appropriate warnings can be issued to the populous east coast.

Added refinement

An added refinement to the warning system is a new, computerized system for predicting the height of damaging storm surges which occur on the northeast coast an average of six times each winter season. It was put into effect on an experimental basis last October. The program is based on equations derived from case histories of 68 storm surges from 1956 to 1969, and uses as input data sea-level pressures predicted for numerous grid points off the east coast. From these, wind forces are calculated over the continental shelf, where storm surges are generated. So far, equations have been derived to help predict storm surges at nine locations: Portland, Me.; Boston, Mass.; Newport, R.I.; Stamford, Conn.; New York, N.Y.; Atlantic City, N.J.; Breakwater Harbor, Del.; Baltimore, Md.; and Norfolk, Va.

Still unresolved, however, is the problem of overbuilding in vulnerable areas of the coast. Both Weather Service Director George P. Cressman and Dr. Robert H. Simpson, Director of the National Hurricane Center, have spoken out repeatedly against the increasing density of construction in low-lying areas without provision of adequate evacuation plans and without regard for the fact that disasters such as the great Atlantic storm of 1962 are bound to recur, sooner or later. They urge planners at all levels of government to press for local building codes which will provide unwary home buyers with greater protection against storms of this magnitude. *—NOAA*



STORM ALERT—*Once alerted by a tornado or severe thunderstorm, local meteorologists of the National Weather Service monitor the atmosphere over their area for signs of dangerous activity such as high winds, heavy rain, hail, intense lighting, rotary cloud motion. Using sophisticated instruments such as the radarscope, meteorologists can blunt the edge of a serious storm.*

New Means To Stimulate Industrial R&D Sought To Benefit U.S. Economy

New ways to stimulate a resurgence of industrial research and development—"the innovative urge in industry"—are being sought by the Commerce Department, James H. Wakelin, Jr., Assistant Secretary of Commerce for Science and Technology, assured a Textile Research Institute conference in New York recently.

Discussions are being held with industrial leaders, research managers, and entrepreneurs, especially those skilled in complex, modern technologies, he said. Although too early to determine the direction which the Department will propose, Wakelin suggested some routes that might be taken which have received favorable response.

Cost sharing

"Proposals from industry will be selected for research support by the Department," he said. "Cost sharing details will be worked out in such a way as to balance the risk and encourage a maximum of innovation. The contractor—in this case, most likely a smaller technology-based company dealing with civilian markets—would be expected to contribute commercialization efforts in return for limited proprietary rights that are necessary as a business incentive."

Another type of program being worked out, he told the conference, "would permit a broad pooling of research efforts of many companies with common goals. This 'business community research' would be aimed at socially desirable goals such as anti-pollution and conservation of materials.

"Such goal-directed activities invariably involve high costs and high risk and require high level technology," Wakelin pointed out. "The Federal Government's role would be, first, to determine that individual private efforts cannot meet the problem and, second, to provide the framework for cooperative private efforts with governmental guidance and assistance."

Wakelin said industry has avoided cooperative research except through institutes or universities "because of assumed antitrust problems" but he added that research projects carried on under Government administration should avoid this risk.

"The Government presence could assure against monopolistic practices, and participation in the research would be open to all interested parties. Cost sharing would be in effect, with a considerable leverage on any Government contributions. Any patents that would result from such efforts would be privately owned but broadly shared either free of charge to other participants or at a reasonable royalty to non-participants. "The point is," said Wakelin, "everyone would have access to the benefits of the cooperative effort. We have reason to believe that this pattern of research support and aggregation of R&D effort would stimulate progress in fulfilling our national needs."

He said Commerce would also try to develop the transfer of Government technology into the civilian economy.

Marketplace incentives

All of these possibilities, which he called the Experimental Technology Incentives Program, are being explored by Commerce's National Bureau of Standards, Wakelin said.

"We intend to rely heavily on marketplace incentives to motivate potential exploiters of Government-generated technology," he said. "One way of providing such incentives would be to place a greater emphasis on the Government patent policy which rewards contractors for commercial exploitation of the technology.

"Nowhere is technology more important than in meeting broad social needs," the Assistant Secretary concluded, "such as flammability protection for certain vulnerable classes of people, especially the very young and very old. We need to know more about the uses of technology, and both the public and private sectors can and must work together to increase our knowledge and to put technology to work."

—Office of the Assistant Secretary for Science & Technology

Treated Sewage Seen Food For Commercial Shellfish

Commercial production of mussels and oysters on treated sewage may one day be possible as the result of a pilot plant to be built soon. It will be equipped by a $55,000 Sea Grant to Woods Hole, Mass., Oceanographic Institution from Commerce's National Oceanic and Atmospheric Administration.

A laboratory model of the sewage treatment-aquaculture system has been designed and successfully tested. The project has now progressed to a point where it must be enlarged to a pilot scale to test and evaluate its practical potential.

The system involves the growth of cultures or natural populations of marine phytoplankton in diluted effluent from a secondary sewage treatment process and utilization of the algae as food by shellfish. It is designed to remove the objectionable inorganic products of sewage decomposition such as ammonia and phosphate and to produce shellfish as a by-product.

The NOAA Sea Grant funds will be added to those from other sources such as the Rockefeller Foundation, the Sarah Mellon Scaife Foundation, and the New England Regional Commission to begin actual construction and testing of the new pilot plant facility.

—NOAA

Nationwide Weather Services Plan Further Expansion Starting July 1

Improved warnings of hazardous weather, and expanded meteorological services to agriculture and to air pollution control authorities, are planned by Federal agencies for the fiscal year starting July 1.

The newly-published "Federal Plan for Meteorological Services and Supporting Research—Fiscal Year 1973" includes projected activities of all Federal agencies conducting such programs. They are the departments of Agriculture, Commerce, Defense, Interior, and Transportation, and the Atomic Energy Commission, Environmental Protection Agency, National Aeronautics and Space Administration, and the National Science Foundation.

Improved flow

A combined Federal Plan is developed annually by the Federal Coordinator for Meteorological Services and Supporting Research, Dr. Robert M. White, Administrator of Commerce's National Oceanic and Atmospheric Administration.

Measures to improve warnings of disastrous weather include installation of additional radar equipment, development and launch of advanced satellites, and expansion and modernization of communications systems.

To provide an improved flow of weather information and warnings to the public, NOAA plans to extend or complete its weather wire service in New Hampshire, Vermont, Delaware, Maryland, District of Columbia, Virginia, West Virginia, Wyoming, Montana, and Colorado. This service, which disseminates forecasts, warnings and advisories to the public and to the mass media, presently covers 20 states and parts of seven others.

The Federal Aviation Administration's Improved Weather Message Switching Center at Kansas City, Mo., is expected to effect, during the coming years, a saving of $1,610,000 and 139 man-years over the former manual system. Inaugurated in fiscal year 1972, the Center uses electronic computers to control weather communications circuits and to store and relay weather information.

Advanced instruments

Advanced instruments to be flown on environmental satellites during the coming fiscal year will provide a variety of new and improved observations. NOAA's operational ITOS-D, and NASA's research satellite Nimbus E, both scheduled for launch late this year, will gather measurements from which vertical temperature profiles can be derived. Improved scanning radiometers will permit more detailed analyses of clouds, snow and ice cover, and sea-surface temperatures.

Added facilities are required to analyze, process, and disseminate the increased data from these and future satellites. In fiscal 1973, NOAA plans to install additional computer facilities and to establish a data utilization station at Honolulu.

NOAA's agricultural weather service, providing specialized observations, forecasts, warnings, and reports to the agricultural community and forestry management interests, is scheduled for extension to Arizona, Montana, Nebraska, New York, North Carolina, Ohio, and Wyoming. In addition, the service will be augmented in California and Oregon.

To assist air quality control programs, NOAA plans to establish Environmental Meteorological Support Units in Portland, Ore., Charleston, W.Va., and Birmingham, Ala. Such units have been established previously in 14 urban areas.

Planned research programs in support of weather services include NASA's development of the Nimbus E and F and TIROS N flight programs. NOAA will continue to stress development of techniques for computer prediction of all weather elements in the public weather forecasts.

Copies of the Federal plan document are available for 70 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

—NOAA

DATA MONITOR — *Meteorologists use surface data from hundreds of points, radar summaries, satellite photographs, sounding balloons, and reports from pilots to monitor conditions in the atmosphere. From these thousands of pieces of information, they determine the area most likely to experience severe weather.*

Patents Sees All Time Record

Since its establishment in 1790, the 182-year-old Patent Office has issued more than 3.6 million patents.

New applications for patents are expected to exceed 104,000 and more than 83,000 patents will issue this fiscal year. Both are all time records, officials report.

—Patent Office

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Fruit-picking apparatus. The apparatus comprises an articulated hollow boom having an extensible upper arm containing coextensible conveyor means for conveying fruit into the top of an upwardly inclined lower arm regardless of the inclination of said upper arm, the bottom of said lower arm being rotatably mounted on the vehicle over a throat into which the fruit is discharged. The upper arm has a circular picker-supporting bucket at its outer end with an outer annular fruit-receiving trough arranged to discharge fruit onto the conveyor means in the upper arm. The supporting vehicle has rearwardly extensible conveyor means conveying fruit rearwardly from the throat to a container supported on the vehicle in horizontal fruit-receiving position, and means are provided for depositing a filled container on the ground and supporting an empty container in fruit-receiving position forwardly of the deposited container, the operations of manipulating the picker bucket and the fruit collecting and depositing means controlled at the picker-supporting bucket. Patent No. 3,633,336 issued to Dietrich G. Rempel, Akron, Ohio, and assigned to Rempel Enterprises, Inc., Akron, Ohio.

Filtration system. For use in filtering a fluid which is susceptible to light and heavy solids and other materials suspended in the liquid. The filtration system removes the heavier and lighter suspended particles through settling and skimming where the suction of a downstream pump draws the liquid through the filter apparatus. The filter apparatus functions after removal of the heavier and lighter contaminants which typically clog filter media. Patent No. 3,635,343 issued to Richard W. Holland, 13103 Conifer, Houston, Texas.

Door control mechanism. A door control mechanism for controlling the movement of a sectional door between the closed and the open position where the door is biased towards the closed position. The mechanism accommodates manual movement of the door to the open position followed by an automatic movement of the door to the closed position, followed by an automatic movement of the door to the open position and then followed by manual movement of the door to the closed position. The mechanism includes a first latch having a door-holding condition for holding the door in its open position and having a door releasing condition for releasing the door and allowing it to move to the closed position, a second latch mechanism having a device-connecting condition for connecting an energy-storing device to the door automatically to move the door to the open position. A device-holding condition maintains the energy-storing device out of operative connection with the door, a trigger for selectively operating the first and second latch mechanisms, and a selector for selectively rendering the trigger operable to change the condition of only one of the first and second latch mechanisms at one time. Patent No. 3,635,277 issued to Erwin B. Bahnsen, Hinsdale, Ill., and assigned to Steiner American Corporation, Salt Lake City, Utah.

Solar heating device. A solar heating apparatus which consists of a post, a collapsible tripod for holding the post perpendicular to a supporting surface and a frame universally mounted on the post. A pair of reflectors are mounted on the frame, each reflector consists of a number of sector-shaped segments pivotally joined at one end and alternate segments interconnected by a flexible tape so they can be collapsed in a superposed storage position and expanded with a fan-like movement to form a semi-parabolic reflector. Means on the frame enable adjustment of the focal points of the reflectors. A second post is fixed, pivotally or otherwise, to the first post to enable an object to be held in the vicinity of the focal points of the reflectors. The frame can form a case for storage of the device. Patent No. 3,643,648 issued to Adnan S. Tarcici, Ave. de Bude 13, 1200 Geneva, Switzerland.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, GPO, Washington, D.C., 20402.

Science Calendar

April 24-27—Washington, D.C.—American Physical Society, Sheraton-Park Hotel.

April 25-28—Orlando, Fla.—Sixth annual Inventors' Congress held concurrently with Florida Industries Exposition which sponsors it in cooperation with the Commerce Department.

June 21-23—Boulder, Colo.—National Bureau of Standards, Boulder Laboratories Joint Measurement Conference. Theme is "The Role and Value of Measurement." Sponsored by National Bureau of Standards and others.

August 9-12—Kailua-Kona, Hawaii—International Symposium on Billfish. Sponsored by National Marine Fisheries Service.

Oct. 30-Nov. 1—Gaithersburg, Md.—National Bureau of Standards. "Dimensional Accuracy in Manufacturing." Sponsored by National Bureau of Standards.

Newsmemo

Opening of a permanent office in Europe this summer by the American National Standards Institute (ANSI) is a major step forward in worldwide industrial standardization efforts. ANSI represents U.S. interests in work carried out by non-treaty, non-governmental organizations such as the International Organization for Standardization and the International Electrotechnical Commission. The ANSI Geneva office will work with the central offices of these units, with Common Market headquarters in Brussels, and, through the U.S. Mission in Geneva, with the various agencies of the United Nations.

All aboard for exports. A special Erie Lackawanna train leaves Hoboken early on Wednesday, April 26, stops at Newark, and reaches its destination at Boonton. This "Export Express" will thus bring manufacturers, bankers and others to the Fifth New Jersey World Trade Conference. New Jersey was eighth in exports among the States when the last compilation was made in 1969, and is determined to move up in the next ranking, which will reflect 1972 export totals.

The importance of community cooperation in export promotion can be seen in the lineup of sponsors for the "Export Express": City of Hoboken, City of Newark, Delaware River Port Authority, Eastern Railroad Assn., Erie Lackawanna Railway, Eximbank, Foreign Credit Insurance Assn., Intl. Executives Assn., New Jersey Bankers Assn., New Jersey Manufacturers Assn., New Jersey Dept. of Labor and Industry, New Jersey State Chamber of Commerce, New Jersey World Trade Committee, New York Port Promotion Assn., North Atlantic Ports Assn., Port Jersey Corp., Port of New York Authority, South Jersey Port Corp., World Trade Assn. of New Jersey, and the U.S. Dept. of Commerce Field Offices.

U.S. private investors looking at opportunities in Yugoslavia and Romania now have backup support from OPIC. The Overseas Private Investment Corp., a U.S. Government agency, offers political-risk insurance and investment guarantees in about 90 developing nations. OPIC's president Bradford Mills comments that "Both countries are interested in ventures with U.S. partners, and Yugoslavia is particularly advanced with its planning."

Lively interest is being shown in a new Commerce study of the Japanese economy and how it meshes the interests of business and government. A detailed story on Eugene Kaplan's "Japan: The Government-Business Relationship--A Guide for the American Businessman" was carried in the April 3 issue of Commerce Today. The book is available from the Superintendent of Documents, GPO, Washington, D.C., 20402, or any Commerce Field Office at 65 cents per copy.

International Trade Winds

COMPUTERS — Sperry Rand's Univac Division, Blue Bell, Pa., reports the sale of Univac systems to firms in the United Kingdom and France. Coutts and Co., a London-based banking concern, has installed a Univac 9400 computer with a network of terminals, valued at $1 million, as the first step in establishment of a real-time banking system to improve customer service. In France, Societe Europeenne de Propulsion (SEP) has contracted for a Univac 1106 system and associated equipment, worth $1.5 million. Scheduled for delivery in 1973, the 1106 system will process technical and scientific calculations resulting from SEP's activities in rocket propulsion; terminals in the firm's four manufacturing centers in France will be linked to the computer at company headquarters in Puteaux, a suburb of Paris, enabling engineers to rapidly obtain data stored in the computer's memory banks.

COMMUNICATIONS—RCA Global Communications, Inc., New York, has announced the opening of International Datel service between New York and Australia. Australia joins Hong Kong and Japan as points in the Pacific now having Datel service, which permits businessmen in the United States and abroad to exchange data on a call-up basis. Locations in Europe and the Caribbean are also being served. RCA Globcom reports that Datel is tailored to businesses which have moderate amounts of data to exchange with computers abroad but which cannot economically use a full-time circuit.

CHEMICALS—The Monsanto Co., St. Louis, has completed construction of its first agricultural testing and development center in Europe. The center, located near Charleroi, Belgium, will help Monsanto provide European farmers with new products for increased crop production.

MINERAL PROCESSING — Dravo Corp., Pittsburgh, has been awarded a contract to design and construct an iron ore crushing, drying and screening facility for Orinoco Mining Co., a U.S. Steel Corp. subsidiary, at Puerto Ordaz, Venezuela. The plant will be designed to handle 13.6 million metric tons of ore annually. An addition to an existing complex, it is expected to be completed in mid-1973.

INTERNATIONAL COMMERCE REPORT

- UNCTAD meets in Santiago
- Washington trade briefs
- Report on drainage mission to Egypt
- Economic rebound in Sweden
- U.S. and the competition in Denmark
- Reviews of five trade reports

U.S. Position Sags In Most Major Markets

Imports by this country's major trade partners continued to expand, in some cases sharply, during the latest 12 months for which data are available. Growth, however, was generally slower than in the preceding year. The widespread advance in prices, although slowing late in the period, contributed significantly to the increases by most nations.

Arrivals of U.S. goods in foreign markets for the most part grew more slowly than those from other suppliers and, in many cases, registered actual declines. This poor performance was partly attributable to the sluggish economic activity abroad, reducing demand for industrial supplies and capital goods for which this country is a prime supplier, and to the depressing effects on trade of dock strikes in the United States. Consequently, the U.S. share fell in nearly two thirds of the principal markets, including all of the top ten, although almost holding its own in Canada.

The past year marked the end of a prolonged period of business expansion abroad which, by the end of 1970, had overheated the economies of most of the large industrial nations. Intense inflationary pressures led governments to impose fiscal and monetary restraints as well as a variety of incomes policies. The resultant slackening in economic activity was characteristically accompanied by slower industrial production, rising unemployment, and often a reappraisal and reduction of new investment plans as business confidence eroded. At the same time, the upward movement in prices showed few signs of abating and unit labor costs continued to rise. The unsettled international monetary situation, prior to the Smithsonian agreement to realign exchange rates last December, further inhibited the recovery process.

By the end of the year, however, demand pressures generally eased and many economies exhibited a considerable degree of slack, prompting a shift to expansionary

PHOTO ABOVE—A buildup in the U.S. share of the Japanese market can follow upon a buying mission that plans seminars next month in six U.S. cities on selling consumer goods in Japan. Harold B. Scott (left), Assistant Secretary of Commerce for Domestic and International Business, met recently with an advance team of Japanese business officials. The accompanying report, prepared by the Commerce Department's International Trade Analysis Division, includes Japan among 50 foreign markets for which changes in total imports, and the U.S. share of those imports, are reviewed.

policies by a number of governments. In contrast to most industrial nations, Canada and France enjoyed substantial growth despite similar domestic economic problems. Many of the less advanced countries, especially those in developing Asia and some of the smaller ones bordering the Caribbean, also displayed strong economic gains.

The expansion in imports by the majority of the developed nations ranged between 10 and 20 percent over the previous 12-month period but only in Canada and France did the rate of growth accelerate. Japan, undergoing a major business slowdown, sharply decelerated its overseas purchases. After expanding by about one-quarter during 1970, the nation's imports edged up by less than 5 percent last year. Finland, Australia, and Sweden recorded comparable slackening in import growth.

Import pace quickens in LDC's

Many developing countries expanded their intake of foreign products more rapidly than the developed nations—some, stepping up the rate of increase. Nigeria far outdistanced the field with an increase of nearly two thirds, following a 40 percent rise a year earlier. On a more modest scale, Korea and Israel accelerated their imports as well, registering increments of 29 and 23 percent, respectively. Colombia, Egypt, and Taiwan also boosted purchases by more than one fifth. Conversely, Pakistan, Ecuador, and Morocco posted declines.

Although most of the leading industrial nations reduced their purchases of U.S. products during the latest 12-month period, Canada, the Netherlands, and Germany were important exceptions. Nevertheless, imports by all three from other suppliers rose more rapidly and the U.S. share declined.

Following a year of sluggish growth, Canadian imports, buoyed by a strong recovery domestically, jumped by 16 percent while those from the United States, the predominant supplier, increased slightly less rapidly. Arrivals of automotive products soared, as the recovery from the auto strike late in 1970 provided the initial impetus. Later, Canadian demand for the full-size U.S. cars rose, accompanied by a larger inflow of parts for assembly of compacts and subcompacts in response to the strong market in this country. At the same time, purchases of U.S. agricultural machinery, computer parts and peripheral equipment, and telecommunications equipment also posted notable gains.

The Netherlands and Germany similarly expanded overall imports by 16 percent. Despite sharply reduced Dutch requirements for U.S. corn and organic chemicals, purchases of aircraft, including seven 747's by the national airline, more than doubled. In addition, higher imports of soybeans, coal, and petroleum products helped hold the decline in the U.S. share to nominal proportions.

In Germany, the inflow of U.S. goods rose only half as rapidly as did those from other suppliers, as the sluggish domestic demand caused a cutback in imports of nonferrous ores, scrap, and metals as well as iron and steel products and organic chemicals from this country. Newly opened atomic power plants, however, necessi-

World Market

The 50 markets below accounted for 92 percent of 1970 imports into

Values in millions of dollars — Published

Country	1970 Imports			1971 Imports January through latest month				Import change in latest available 12-month period *		Reserves at end of fourth quarter	
	From world	From U.S.	U.S. share %	Latest month	From world	From U.S.	U.S. share %	From world %	From U.S. %	1970	1971
Germany, Fed. Rep.	29,817	3,293	11.0	Dec.	34,464	3,544	10.3	+ 16	+ 8	13,610	18,382
United Kingdom	21,724	2,816	13.0	Dec.	23,966	2,648	11.0	+ 10	— 6	2,827	6,582
France	18,918	1,897	10.0	Dec.	21,247	1,800	8.5	+ 12	— 5	4,960	[3] 7,494
Japan	18,883	5,565	29.5	Dec.	19,696	4,980	25.3	+ 4	— 11	4,840	15,360
Italy	14,939	1,543	10.3	Dec.	15,923	1,432	9.0	+ 7	— 7	5,352	6,787
Canada	14,462	10,268	71.0	Dec.	16,822	11,804	70.2	+ 16	+ 15	4,679	5,701
Netherlands	13,391	1,308	9.8	Nov.	14,039	1,324	9.4	+ 16	+ 10	3,234	3,797
Belgium-Luxembourg	11,362	995	8.8	Dec.	12,642	810	6.4	+ 11	— 19	2,847	3,473
Sweden	7,007	611	8.7	Dec.	7,083	566	8.0	+ 1	— 7	761	1,110
Switzerland	6,483	552	8.5	Dec.	7,221	514	7.1	+ 11	— 7	5,132	6,966
Australia	5,086	1,292	25.4	Dec.	5,256	1,161	22.1	+ 3	— 10	1,693	3,316
Spain	4,749	897	18.9	Dec.	4,963	771	15.5	+ 5	— 14	1,817	3,251
Denmark	4,387	326	7.4	Dec.	4,545	380	8.4	+ 4	+ 17	484	728
South Africa, Rep.	3,912	653	16.7	Sept.	3,326	521	15.7	+ 18	+ 8	1,012	710
Norway	3,702	269	7.3	Dec.	4,082	244	6.0	+ 10	— 9	811	1,154
Austria	3,549	121	3.4	Dec.	4,221	156	3.7	+ 19	+ 29	1,758	2,343
Hong Kong	2,905	382	13.2	Dec.	3,388	423	12.5	+ 17	+ 11	[2]	[2]
Yugoslavia	2,874	160	5.6	Nov.	3,042	192	6.3	+ 19	+ 35	140	176
Brazil	2,849	918	32.2	Aug.	2,392	[2]	[2]	[5] + 26	[5] + 35	1,186	1,744
Finland	2,636	137	5.2	Dec.	2,804	126	4.5	+ 6	— 8	480	715
Mexico	2,461	1,568	63.7	June	1,220	762	62.5	+ 11	+ 9	744	[4] 956
Singapore	2,461	266	10.8	Dec.	2,828	360	12.7	+ 15	+ 35	294	[4] 331
India	2,125	622	29.3	June	1,194	281	23.5	+ 10	— 12	1,006	[4] 1,159
Korea, Rep.	1,984	585	29.5	Nov.	2,175	621	28.5	+ 29	+ 28	610	571
Greece	1,958	116	5.9	Nov.	1,876	118	6.3	+ 4	+ 1	310	525

Note: The countries shown above include the 50 major importers of U.S. merchandise in 1970 for which current data are available. In order to present comparable statistics for all countries, import data have been adjusted from an f.o.b. to a c.i.f. valuation for Australia, Canada, Panama, Philippines, Republic of South Africa, and Venezuela. Reserves include official holdings of gold and foreign exchange, the gold tranche position, and Special Drawing Rights in the International Monetary Fund.

Report Bureau of International Commerce

all free-world markets and 93 percent of imports from the U.S.

quarterly

Country	1970 Imports			1971 Imports January through latest month				Import change in latest available 12-month period *		Reserves at end of fourth quarter	
	From world	From U.S.	U.S. share %	Latest month	From world	From U.S.	U.S. share %	From world %	From U.S. %	1970	1971
Venezuela	1,919	938	48.9	Mar.	482	225	46.6	+ 9	+ 1	1,021	1,522
Argentina	1,685	419	24.8	Oct.	1,608	368	22.9	+ 14	+ 9	673	290
Iran	1,640	218	13.3	June	875	105	12.1	+ 4	— 7	209	621
Ireland	1,569	110	7.0	Dec.	1,834	158	8.6	+ 17	+ 44	697	995
Portugal	1,556	107	6.9	Nov.	1,418	101	7.1	+ 9	+ 12	1,504	1,945
Taiwan	1,524	364	23.9	Oct.	1,406	325	23.1	+ 21	+ 21	624	525
Israel	1,451	326	22.5	Dec.	1,786	429	24.0	+ 23	+ 32	449	737
Thailand	1,293	193	14.9	Sept.	928	135	14.6	— 1	— 3	906	877
Algeria	1,257	117	9.3	June	593	45	7.6	+ 13	— 4	339	506
New Zealand	1,245	167	13.4	Sept.	1,002	106	10.6	+ 14	— 7	126	315
Philippines	1,209	355	29.4	Dec.	1,295	328	25.3	+ 7	— 8	251	382
Pakistan	1,129	361	31.9	Dec.	921	227	24.7	— 18	— 37	182	181
Malaysia [5]	1,111	90	8.1	Sept.	824	52	6.3	+ 10	+ 28	733	898
Nigeria	1,059	154	14.5	June	729	111	15.2	+ 61	+ 93	224	432
Indonesia	893	158	17.7	Aug.	785	122	15.6	[3] + 14	[3] + 2	([2])	([2])
Turkey	886	172	19.4	Dec.	1,075	129	12.0	+ 21	— 25	431	772
Colombia	844	390	46.2	June	460	199	43.3	[3] + 23	[3] + 25	206	203
Egypt	787	48	6.1	May	438	30	6.8	+ 22	+ ([6])	167	[1] 184
Morocco	686	78	11.3	Oct.	521	80	15.3	— 7	+ 34	140	149
Peru	619	199	32.2	Nov.	692	207	29.9	+ 16	+ 8	329	[1] 229
Trinidad & Tobago	543	89	16.4	Sept.	474	82	17.4	+ 17	+ 67	43	69
Jamaica	522	226	43.3	Mar.	128	56	43.6	+ 18	+ 24	165	205
Panama	353	139	39.3	Sept.	283	([2])	([2])	[3] + 16	[3] + 19	304	[7] 419
Costa Rica	317	110	34.8	June	166	55	33.2	+ 17	+ 19	17	28
Ecuador	248	81	32.6	Mar.	64	21	33.1	— 10	— 12	83	65

* Compared with preceding 12-month period.
[1] End of November. [2] Not available. [3] Import change in year 1970. [4] End of October. [5] Import data are for West Malaysia only. [6] Less than 0.5 percent. [7] End of June.
Source: Official trade statistics of listed countries. International Monetary Fund, *International Financial Statistics.*

tated greater purchases of radioactive materials for fuels while imports of aircraft and computer parts and auxiliary equipment remained strong. Various U.S. agricultural products, including soybeans, tobacco, and animal feedstuffs, also found a ready market in Germany.

Purchases from U.S. decline

Many of the other industrial countries followed the pattern of the United Kingdom, Italy, and Japan in reducing purchases from the United States, while raising their overall imports. Although the British economy showed signs of recovery, producers utilized already existing stocks and limited imports of many types of industrial supplies, including iron and steel, copper and other nonferrous metals, and pulp and wastepaper. Imports of U.S. office machines, tobacco, and soybeans also fell. A more serious loss in the U.S. position was averted as the flow of aircraft rose further and, in anticipation of the strike by British miners, American coal was purchased in large volume for the first time in some years.

Italy similarly reduced its intake of industrial supplies as its economy remained sluggish throughout most of 1971. Nevertheless, deliveries of U.S. soybeans and corn expanded. Japanese purchases from this country, after rising by a vigorous 36 percent in 1970, dropped by more than 10 percent. Imports of iron and steel scrap, nonferrous metals and ores, and lumber fell sharply, more than offsetting increases in aircraft and radioactive materials.

Contrary to the trend in most of the industrial nations, several smaller European nations stepped up their inflow from this country more sharply than from other suppliers. Yugoslavia's substantial imports of soybean oil, wheat, and corn helped boost the value of U.S. goods by one third. Larger purchases of aircraft provided the basis for increases by Ireland and Austria of 44 and 29 percent, respectively.

Mexico remained the most important market for American products among the developing countries, although a slowdown in the domestic economy led to a reduced rate of import expansion. Purchases of U.S. aircraft and motor vehicle and tractor parts rose, and the flow of electronic components for assembly operations was moderately higher. While the United States lost share in the Mexican market and also slipped in Argentina, it enhanced standing in some of the smaller regional outlets.

Nigeria posted the largest percentage increase in purchases from the United States. The rise of 90 percent reflected the boost in deliveries of aircraft and construction and mining equipment. In Israel, the intake of U.S. goods also climbed sharply, with advances particularly in aircraft, power generating machinery, and soybeans.

Singapore, Korea, and Taiwan continued to import at a rapid pace from the United States, enabling this country to increase or maintain its share. Singapore's economy expanded rapidly and purchases of U.S. capital goods, especially electric machinery as well as aircraft, rose substantially. Korean imports of American cot-

ton, wheat, and rice showed considerable strength. Cotton was also significant in Taiwan's boost in purchases, as were various types of machinery.

Reserves exceed $100 billion

Official reserves of the principal U.S. trading partners stood at nearly $106 billion on Dec. 31, 1971, over 50 percent higher than at the same point in 1970. A massive inflow of dollars as a result of this country's record payments deficit was responsible for the bulk of the gain, but the second allocation of Special Drawing Rights also contributed to it. Although Japan accounted for almost one third of the increase, the general expansion in reserves extended to four fifths of the countries listed in the accompanying table. Only two recorded declines in excess of $100 million.

The past year was marked by an unprecedented level of activity in the international monetary field. A wave of speculation against the dollar in mid-spring saw large shifts of funds into a number of European countries, especially Germany, which led to the floating of the mark and other currency changes. Another, similar attack a few months later prompted the U.S. suspension of dollar convertibility in mid-August. This, in turn, led to speculative purchases of other currencies, an action followed by a widespread realignment of exchange rates in December.

Japan's reserves more than tripled as they soared by $10.5 billion during the year. Over half this accumulation occurred in the third quarter and reflected another huge trade surplus, investments in Japanese securities by foreigners, and large inflows of speculative funds after May. With a slackening economy and weaker demand at home, Japan markedly slowed its import growth, but boosted exports by about one fourth to produce a favorable balance of record proportions.

Germany, too, experienced a surge in official holdings, nearly $5 billion, to a total of more than $18 billion by the end of 1971. The increase was attributable mainly to a trade surplus even larger than that of the previous year. Most of the speculative inflow of funds in mid-spring was repatriated during the second half. Meanwhile, the United Kingdom more than doubled reserves to $6.6 billion. Comparatively high interest rates and a strengthening currency attracted foreign funds while the British current account position remained strong most of the year.

France also recorded a trade surplus exceeding the 1970 level and raised official holdings to new peaks. Switzerland and Australia were recipients of sizable capital inflows and expanded reserves significantly. Italy, Spain, and Canada were the only other nations to record gains of more than $1 billion during the year.

Brazil led developing countries by increasing its reserves nearly 50 percent to $1.7 billion. Responsible were the heavy inflows of capital which easily offset a trade deficit caused largely by lower coffee prices. Venezuela raised reserves by $500 million on the strength of greater petroleum revenues, even though production was down slightly from the previous year. Oil receipts also helped Iran triple its holdings but a large inflow of foreign investment capital played an important role as well. Neighboring Turkey boosted reserves notably, with the credit going to workers' remittances from abroad and to a bumper wheat crop reducing the need for imports of food grains.

Argentina was the heaviest loser of reserves and was left with less than $300 million at the close of 1971, roughly equivalent to two months imports. A trade deficit and net capital losses shared responsibility for the drain. Official holdings by the Republic of South Africa fell by $300 million in the face of rising imports and a lack of foreign capital. As a result, the government imposed import restrictions in November. Peru and Taiwan each recorded declines of around $100 million. The former saw its trade balance shrink as copper and fishmeal prices fell, while, in Taiwan, an export boom failed to stem the exodus of capital, reflecting the uncertainty in some quarters as to that country's political future.

Third UNCTAD Meeting Grapples With Developing World's Problems

Improved market access for exports from the developing nations, and worldwide monetary and assistance programs for such nations are being discussed at a conference now under way in South America that, at least in length and number of participants, is one of the largest international economic meetings in recent history.

The third United Nations Conference on Trade and Development (UNCTAD III), is being held from April 13 to May 19 in Santiago, Chile. It has more than 2,000 delegates from 135 countries. Like UNCTAD I in 1964 and UNCTAD II in 1968, the conference will be a major event in the evolving dialogue between developed and less developed (LDC) countries.

The agenda covers the entire spectrum of developed-developing country economic relations. Some of the more important topics will be: 1) improved market access for LDC exports through a system of generalized tariff reforms, 2) LDC export promotion, 3) LDC participation in international mone-

tary reform, 4) assistance for the least developed countries, 5) increased volumes of aid, and 6) an LDC-proposed link between the creation of new reserve assets and development finance.

Under Secretary of State John N. Irwin, II is heading the 14-man U.S. delegation. While the United States will not be proposing major new initiatives on behalf of the LDC's, their requests will be supported when they are consistent with U.S. economic and political objectives.

An important U.S. objective at the conference will be to draw attention to the need for the Governments of the developing countries to adopt trade and development policies which will promote economic development and increased exports. This would be in accord with the LDC recognition that the primary responsibility for their economic development rests upon themselves.

Biggest in history

The first United Nations Conference on Trade and Development, held in Geneva in 1964, was the biggest trade conference in history. Most developing countries viewed it as the single most important event for them since the founding of the United Nations. They believed the new institution, devoted exclusively to their trade and development problems, filled a major gap in post-war trading arrangements and would make a significant contribution to the realization of a more equitable international trading system. Probably the most significant accomplishment of UNCTAD I was the creation of permanent machinery. This includes a major conference which has met every four years, a 55-member Trade and Development Board meeting annually between conferences, and four standing committees of the board responsible for manufactures, commodities, financial issues, and shipping.

The second conference was held in New Delhi in 1968. It was preceded by a meeting of the "Group of 77" developing countries in Algiers at which the LDC's drew up a common negotiating position for the New Delhi conference.

The meeting was a further step forward in the continuing discussion of means to foster LDC development. Agreements were reached in the fields of development finance, generalized tariff preferences, commodities, and shipping, and arrangements were established for further study of these and other problems.

Once again trade questions will play a major role in the conference's deliberations, but this year they must share the stage with international monetary problems as they affect the developing nations.

The agenda is long and covers a great variety of topics. But with appropriate cooperation by all participants, the third conference can make a constructive contribution to the development process.

Washington's Official Trade Briefs

This article is another in a series of monthly reports outlining actions by domestic, foreign, or international agencies affecting world trade, as compiled by the Legislation and Tariff Analysis Division of the Bureau of International Commerce's Office of International Trade Policy, and by the BIC Office of International Investment.

THE PRESIDENT

New Laws: During March, President Nixon signed the following bills into law: S.749, authorizing a U.S. contribution of $100 million to the Special Fund of the Asian Development Bank for fiscal year 1972 (P.L. 92-245); S. 748, to provide $900 million for each of the fiscal years 1972 and 1973 as a U.S. contribution to the Fund for Special Operations of the Inter-American Development Bank (P.L. 92-246); S. 2010, authorizing three annual installments of $320 million each to increase U.S. participation in the activities of the International Development Association (P.L. 92-247); H.R. 8293, to extend until Sept. 30, 1973, the International Coffee Agreement Act of 1968 (P.L. 92-262); and S. 3160, increasing from $35 to $38 per ounce the price of gold, modifying the par value of the dollar (P.L. 92-268).

CONGRESS

Since last month's Official Trade Briefs (see *Commerce Today*, March 20), the Senate passed without amendment and cleared for the House S.J. 218, to extend from May 1, to Aug. 1, 1972, authority to regulate exports.

Committee Action: Hearings on S. 1487, to further extend authority to regulate exports until June 30, 1975, were held on March 13-14 by the Subcommittee on International Finance of the Senate Committee on Banking, Housing and Urban Affairs. Testimony was received from Harold B. Scott, Assistant Secretary of Commerce for Domestic and International Business, and from representatives of the business community. Elsewhere in the Senate, the Committee on Foreign Relations, in executive session, adopted a motion to undertake an in-depth study of the role of multinational corporations and their relationship to the foreign policy of the United States.

In the House, the Committee on Merchant Marine and Fisheries continued hearings on H.R. 12324, to amend the Cargo Preference Act

of 1954 with respect to importation of oil. Other House activity included a day of hearings by the Committee on Government Operations concerning the efficiency of the promotional activities of the USDA's Foreign Agricultural Service. Testimony was heard from Department of Agriculture officials and representatives of several U.S. agricultural associations.

Upcoming Hearings — Adjustment Assistance: On April 24, the Subcommittee on Foreign Economic Policy of the House Committee on Foreign Affairs is scheduled to begin hearings concerning adjustment assistance problems and procedures in Room 2172, Rayburn House Office Bldg., Washington, D.C.

New Legislation: Since the opening of the 92nd Congress, some 442 trade and related bills have been introduced. Of these, 101 contain specific quota provisions and 42 contain general orderly marketing provisions, applicable when imports surpass stated levels of domestic consumption. Legislation not previously reported includes: S. 3291, to amend the TSUS regarding fish nets and netting; S. 3434, to provide for the temporary duty-free importation of logwood extract; H.R. 13605, to permit persons under 18 to engage in foreign commerce; H.R. 13699, to extend the duty suspension on dyeing and tanning products until September 1975; H.R. 13729, to establish a 200-mile U.S. fishing zone; H.R. 13817, to amend the marking and labeling provisions of the Tariff Act of 1930 regarding the term "ultimate purchaser" in the case of certain articles imported for processing; H.R. 13854, to amend the Trade Expansion Act of 1962 concerning workers' adjustment assistance allowances;

H.R. 13606, to promote the foreign policy and security of the United States by providing authority to negotiate commercial agreements with any country (cited as the "East-West Trade Relations Act of 1972"); H.R. 13928, to suspend for a two-year period the duty on crude barium sulfate; H.R. 13937, to require the exclusive use of U.S. materials in construction of certain pollution control facilities; H.R. 14156, to amend the Fair Labor Standards Act concerning the minimum wage, and to establish procedures for firms and workers injured by imports; H.R. 14165, to create a special tariff provision for glycine; H.R. 14228, regarding the labeling of foreign products to show country of origin; & S.J. Res. 219, to establish a national policy regarding conversion to the metric system in the United States (see also H.J.Res. 1132).

TARIFF COMMISSION

Report on Trade Agreements Program: On April 3, the Tariff Commission released its 21st report on operation of the trade agreements program. The report describes U.S. and foreign commercial policy developments affecting the program during 1969. Copies of the report (TC Publication 470) may be obtained from the Secretary, U.S. Tariff Commission, Washington, D.C. 20436.

Annual Report on Broom Consumption: As required by Executive Order 11377, the Tariff Commission recently reported to the President its judgment as to U.S. consumption of brooms made of broom corn in 1971. The Commission's report indicates that consumption of corn whiskbrooms declined by 14 percent since 1970 (to 382,331 dozen) while consumption of other corn brooms declined by 5 percent (to 2,772,403 dozen). The Commission's annual reports provide the data necessary for the President to determine if domestic consumption of corn brooms has changed substantially since 1965. If so, the President must proclaim changes in the applicable tariff quotas.

Adjustment Assistance—Firms: In March, the Tariff Commission opened two new investigations on behalf of firms alleging injury due to increased imports. After examining the effect of imports, the Commission will determine whether the following firms are eligible to apply for adjustment assistance: Otto Goedecke, Inc., Hallettsville, Tex. (**cotton yarns** and **plainwoven fabrics wholly of cotton**); and G and H Decoy Mfg. Co., Henryetta, Okla. (**plastic duck decoys**).

Adjustment Assistance—Workers: On March 24, the Tariff Commission found that workers producing **mercury-wetted contact relays** at the Rapid City, S.D. plant of C.P. Claire & Co., did not meet the criteria establishing eligibility for adjustment assistance.

The Commission also opened five new investigations into the effect of imports on workers at C.G. Conn, Ltd., Oak Brook, Ill. (**brass wind musical instruments**); Cambridge Tile Mfg. Co., Cincinnati, Ohio (**glazed ceramic tile**); B.F. Goodrich General Products Corp., Riverside, N.J. (**rubber catheters**); RCA Corp., New York (**color** and **monochrome television picture tubes**); and Kayser-Roth Corp., Burlington, N.C. (**panty hose** as specified in TSUS 382.78).

Section 337 (Unfair Import Competition) Cases: On March 15, the Tariff Commission submitted to the President its final report in an investigation into a complaint filed by W. A. Baum Co., Inc. of Copiague, N.Y., alleging patent infringement of imported **sphygmomanometers** (used for measuring blood pressure). The Commission found that the injury criteria of the statute had not been met and therefore did not recommend that the President issue an exclusion order (see *Commerce Today*, Feb. 21). Although the Baum Co. recently requested a rehearing, the request was denied by the Commission because no new evidence was presented on matters relevant to the finding of no injury.

The Commission also released a report March 31 of its full investigation into a complaint filed by Tights, Inc. of Greensboro, N.C.,

which alleged patent infringement involving certain imported **panty hose.** The Commission unanimously found—Commissioners Parker and Young not participating—violation of the statute and recommended that the President issue a permanent import exclusion order (see *Commerce Today,* March 20). A temporary exclusion order is currently in effect on this item.

Recently the Commission gave notice of an amendment to a complaint filed by Venus Esterbrook Corp. of New York, alleging patent infringement involving certain imported **writing instruments** and **nibs** therefor (see *Commerce Today,* Jan. 10). The amendment adds a request for relief from contributory infringement of said patent and specifies the Micropoint Engineering Co. of Sunnyvale, Calif. as an additional respondent in the case.

Announcing receipt of a complaint filed by the Wurlitzer Co. of Chicago, the Commission opened an investigation of alleged patent infringement involving imported **electric pianos.** Information pertinent to the investigation may be submitted to the Commission not later than April 29.

OTHER AGENCIES

Treasury—Antidumping Act Enforcement: On March 30, Eugene T. Rossides, Assistant Secretary of the Treasury for Enforcement, Tariff and Trade Affairs and Operations issued an explanatory statement concerning the impact of recent international currency realignments on the Department's administration of the Antidumping Act. Secretary Rossides' statement is reproduced in part as follows:

"The recent appreciation of foreign currencies in relation to the dollar has effectively increased the adjusted home market ex factory prices of foreign merchandise, as expressed in dollars. This raises the possibility that some of these home market prices may now exceed the adjusted ex factory prices of such or similar merchandise sold to the United States. To the extent this is so, this could create margins that could form the basis for a determination that sales at less than fair value have occurred or are occurring.

"Such margins are avoided to the extent that foreign exporters revise their prices either by raising their prices to the United States or by lowering the home market prices. If on the other hand, a foreign exporter chooses in such a situation to absorb the increased cost associated with an appreciation of its home market currency, vis-a-vis the dollar, in order to maintain the competitive position of its product in the U.S. market, and fails to lower its home market prices correspondingly, margins may well be created which could form the basis for a determination of sales at less than fair value. Such margins, if more than minimal in relation to the volume of sales, would warrant a determination of sales at less than fair value in such cases.

"In some instances, a foreign exporter, or its U.S. subsidiary, may have no choice but to absorb some or all of the increased costs associated with a currency appreciation. This would occur in a situation in which a fixed-price contract for the sale of merchandise to the United States is entered into prior to the date of any currency appreciation and the merchandise is not imported until after the effective date of the appreciation. Whether or not any apparent dumping margins would be created in the case of such involuntary absorption and, if so, whether such margins would be considered as warranting a determination of sales at less than fair value can only be determined after the examination and consideration of many factors, including all the circumstances surrounding a given contract and the importations made pursuant to it."

Treasury—Dumping Cases: The Treasury Department recently issued formal dumping findings with respect to **diamond tips** for phonograph needles from the United Kingdom and **ice cream sandwich wafers** from Canada. The finding of dumping is the final administrative requirement in antidumping investigations. Earlier, Treasury found that the products in question were being sold in the U.S. at less-than-fair value (LTFV). The cases were then referred to the Tariff Commission which determined that industries in the United States were being injured by reason of the LTFV sales. As a result of the current action, all LTFV imports of diamond tips from the U.K. and ice cream sandwich wafers from Canada will be subject to special dumping duties.

Since the last Official Trade Briefs (*Commerce Today,* March 20), Treasury also determined that **cadmium** from Japan is being sold in the United States at less-than-fair value and referred the case to the Tariff Commission. In two other actions, Treasury announced the final discontinuation of investigations concerning the alleged LTFV sales of **railway track maintenance equipment** from Austria and **shoeboard** from the United Kingdom.

New dumping investigations initiated by Treasury in March are as follows: **card clothing** from the U.K. (used to prepare certain fibers for swimming); **neopentyl glycol** from Japan (used in the manufacture of polyester resins); **collapsible baby strollers** from Japan; and **manual hoists** from Luxembourg.

Treasury — Countervailing Duty Order: On March 27, Treasury issued a countervailing duty order against **tomato paste, peeled tomatoes,** and **tomato juice** from Greece. The new duties will become effective on May 13, 1972. Section 303 of the Tariff Act of 1930 requires the Secretary of the Treasury to levy a countervailing duty equal in amount to any grant or bounty which a country bestows on its exports to

the United States. In the case of Greek tomato products, subsidies range from 3 to 17 percent.

Commerce — Adjustment Assistance: On March 29, the J. H. Bonck Co., Inc., a New Orleans apparel producer, was certified as eligible to apply for adjustment assistance as provided by the Trade Expansion Act of 1962. The company may now submit an adjustment assistance proposal to the Commerce Department's Office of Trade Adjustment Assistance.

Transportation—Hazardous Materials Regulations: The Department of Transportation has further extended to June 1 the applicable period for submission of briefs concerning the Department's proposed amendment of certain requirements regulating importation of compressed gas cylinders manufactured outside the United States.

Agriculture—Meat Imports: The Department of Agriculture announced recently that it is adding El Salvador, effective April 14, and the Trust Territory of the Pacific, effective May 5, to the list of countries eligible to ship meat to the United States.

In addition, Agriculture recently issued its annual report on inspection of meat imported into the United States during 1971.

Agriculture—Pet Bird Imports: Imported parrots and mynah birds will be regulated by the Agriculture Department to prevent further introduction of exotic Newcastle disease. The spreading outbreak of this disease in Southern California caused Agriculture to declare a national emergency to safeguard the United States $5 billion poultry industry.

Agriculture—Fruit and Vegetable Imports: On April 13, the Department of Agriculture imposed minimum grade standards for imported raisins. This action was necessary to bring import regulations into line with domestic regulations under a Federal marketing order.

Overseas Private Investment Corp. — Yugoslavia, Romania Extension: The Overseas Private Investment Corporation will extend its incentive programs to U.S. private investors in Yugoslavia and Romania as soon as satisfactory administrative arrangements with the two governments have been completed.

President Nixon on March 21 authorized OPIC to move forward toward the conclusion of arrangements with both countries. The Foreign Assistance Act of 1971 authorizes the President to take such action if he deems it in the national interest.

OPIC President Bradford Mills, who visited the two countries last year to present details of OPIC's programs and possible investment opportunities, said that the agency had already received five insurance applications for political risk insurance, one including a request for financing, to cover potential investments in Yugoslavia.

OPIC, a U.S. Government agency, offers U.S. private investors in some 90 developing nations insurance against the risks of expropriation, inconvertibility of local currency holdings, and war damage. It also guarantees repayment of loans made by U.S. lending institutions to private investors, and offers U.S. dollar and local currency loans, as well as pre-investment assistance.

Mills said "there is evidence that investor interest is returning to levels of 18 months ago and earlier. The number of insurance applications on hand with foreign government approvals stood at 133 on Dec. 31, more than 23 percent above the figure a year earlier."

East Asia continues as the area of primary investor interest, a trend established during fiscal 1971. Of the 133 insurance applications with foreign government approvals, 57 were for projects in that region, 45 in Latin America, 17 in Africa and 14 in the Near East and South Asia.

Investment guaranty and DIF applications indicate that Brazil continues to lead all other countries in investor interest, with Indonesia in second place.

International Trade Briefs

Canadian Dumping Action: The Canadian Antidumping Tribunal has canceled hearings regarding alleged dumping of methanol by a U.S. firm after withdrawal of the dumping complaint by the Canadian firm. The Tribunal will publish a notice of no finding.

AMA To Hold Seminars In 3 Cities In May

Six meetings on various facets of international trade have been announced for May by the American Management Association—one in San Francisco, one in Chicago, and four in New York.

In San Francisco, May 8-10, an orientation seminar on the Fundamentals of Foreign Exchange has been scheduled at the Sheraton-Palace Hotel. In Chicago, May 10-12, a seminar on Foreign Operations Today Under the OFDI Regulations will be held at the AMA Management Center.

In New York May 15-19, at its headquarters, AMA will introduce a new course in International Trade and Finance. Other meetings there, by date and subject, are: May 15-17, Financing a Joint Venture; also May 15-17, Terms, Credits, and Collections in International Trade; and May 17-19, The Financial Officer's Job in International Operations.

Two officials from the Commerce Department's Office of Foreign Direct Investments will be among the speakers at the Chicago seminar: William V. Hoyt, director, and Robert A. Anthony, chief counsel.

Write: American Management Association, 135 West 50th St., New York, N.Y. 10020.

Trade Fairs, Centers

Computer Equipment Shows Aim At European Markets

The three major marketing areas of Northern Europe—Scandinavia, the British Isles and Germany—are the targets of trade shows for which the U.S. Department of Commerce is recruiting exhibits by U.S. producers of electronic data processing equipment. U.S. export sales of computers and computer-related equipment in these markets totaled $382 million in 1971, an increase of almost 54 percent above the 1969 figures.

EDP-IV—Sept. 18-23. The U.S. Trade Center for Scandinavia has scheduled this exhibit for its Stockholm showroom at a time when greatly increased orders for U.S. EDP equipment are expected. Market research has identified the most likely customers.

Total Scandinavian consumption of EDP equipment in 1970 exceeded $150 million. U.S. exports of EDP equipment to Nordic markets have been rising rapidly. In 1971, U.S. firms sold $42.1 million worth, up 65% from 1969.

EDP-IV will be the fourth U.S. EDP exhibition at the Stockholm Trade Center. The last one, in March 1971, yielded $1 million in floor sales for the 38 U.S. exhibitors, who forecast an additional $39.1 million in sales in a year following the show.

COMPUTER '72—Dec. 4-8. This will be the United Kingdom's major showcase for these types of equipment this year.

Aimed at companies and organizations exploring EDP for the first time, as well as the established EDP user, COMPUTER '72 will draw the single greatest concentration of purchasing influence and the largest audience of potential buyers of EDP equipment in Britain during the year.

The U.K. market for EDP equipment was an estimated $405 million in 1970; by 1975, forecasts indicate a market valued at $1 billion, with imports accounting for as much as $650 million.

U.S. firms occupy a strong position in the market. In 1969, U.S. exports of EDP equipment to the United Kingdom amounted to $104.4 million; in 1970, $176.6 million; and in 1971, $145.7 million.

Minicomputers and Peripherals—Feb. 12-16. The U.S. Trade Center in Frankfurt has aimed this show at the West German computer market, Europe's largest, which is expected to reach $1.2 billion by 1974 with imports accounting for $300 million.

U.S. firms exported $116.9 million worth of EDP equipment to West Germany in 1969 and another $194.1 million in 1971.

Demand for minicomputers and peripherals is growing rapidly in Germany—a trend that is expected to continue—according to market research and trade sources.

Emphasis is increasing on satellite systems with intelligent terminals handling part of the data processing. Large companies are moving to distributive processing, eliminating payment for capacity they can't use in a big machine.

It is reported that the number of CRT displays for computer applications will grow by more than 35-fold during the next four years.

The Trade Center's promotion and publicity campaign will start months before show time.

For firms wishing to participate in more than one of these exhibitions, the Commerce Department will pay storage charges for the exhibit items until required for installation at the respective show. Transportation expenses and freight charges between locations, however, will be at the expense of the exhibitor.

This is the first time Commerce has been able to offer Northern Europe as an entire marketing area through related commercial exhibitions for the computer industry. For details on exhibiting at all or any one of these shows, call C. E. Walls on 202-967-4256, or write him at BIC-946, U.S. Department of Commerce, Washington, D.C. 20230.

Scientific instruments and electronic test equipment: Czechoslovakia and Romania. The Brno International Fair in Czechoslovakia and the Bucharest International Fair in Romania offer U.S. producers an ideal showcase for their instrumentation equipment. Both nations' Five Year Plans for 1971-75 concentrate on the modernization and expansion of their industrial economies. To achieve these modernization programs both countries are greatly interested in purchasing instruments and instrumentation equipment of the highest quality and in the most advanced technological areas.

The Czechoslovak import market for U.S. products in this field can be conservatively estimated at $6.5 million and is expected to increase at a rate of 20% annually.

The Romanian Chamber of Commerce has stated that the primary sectors to be developed over the next five years are the electrical engineering and electronics industries and several complexes of technological equipment.

U.S. participation in the Brno and Bucharest events will focus on scientific instruments and electronic testing equipment. Exhibiting at these events will provide an opportunity for U.S. firms to take advantage of these markets.

For details on exhibiting, call James Robb at 202-967-4161. Brno International Fair, Sept. 8-17; Bucharest International Fair, Oct. 15-24.

Drainage Mission To Egypt Sees Big Machinery Sales

Egypt will be needing a variety of machinery and equipment for development projects now being planned.

U.S. products are highly regarded and, importantly, they are competitive. U.S. businessmen are welcomed at all levels of Egyptian business and Government.

Egypt's shortage of hard currency, however, often precludes immediate sales by U.S. exporters. For such transactions, some means of providing financial assistance must be found.

This is the market appraisal of nine U.S. business executives just back from Cairo.

On-the-spot bids

Recent invitations to tender under a $26 million World Bank credit for the Nile Delta Drainage Project was the impetus for sponsorship by the Commerce Department of a trade mission—the nine-member group that spent a week in Egypt in February. Matching U.S. suppliers of machinery and equipment with specific tenders of the Nile Drainage Project, the mission was comprised of manufacturers of such goods as transmission lines, trucks and tractors, mobile cranes, pumps, and tile-laying machines.

The U.S. businessmen thus were prepared to meet with appropriate Egyptian Government officials to discuss tenders already issued or yet to be offered. Several bids were submitted on the spot.

In addition, the mission found significant business opportunities in other areas of Egyptian development, several deemed to be at the take-off stage: the Suez Mediterranean pipeline, land reclamation, expansion of petroleum projects, transportation improvements, and a series of construction, industrial, and electrical projects.

Immediate sales of $340,000 and projected sales in the next 12 months of some $6 million were reported in connection with such undertakings. Successful U.S. bids on the drainage plan could increase this total to $14 million during the next year.

Mission Director Jack E. Butler, executive assistant to the Assistant Secretary of Commerce for Domestic and International Business, noted that except for projects underwritten by the World Bank or other agencies for which specific allocations have been made, shortage of available foreign currency is considered the major deterrent to current sales. If financing could be found, sales by American firms would increase substantially.

All of the mission members emphasized that financing would be an important factor in making U.S. sales; however, Egypt's present heavy debt service burden clouds prospects for additional credit.

"To implement the country's development plans, requirements for machinery and equipment are enormous," the mission reported. "The intensity of interest on the part of the Egyptians increased as the week wore on—so much so that it was not possible to schedule all the requests for interviews by either the business community or Government officials."

Highlight of the mission was a briefing by the acting chairman of the Nile Delta Authority and his associates—the principal technicians and engineers. Details of both the present project and the proposed upper Egypt Drainage Project were discussed at some length.

Attendance exceeded expectations at a reception held by U.S. Minister Joseph N. Greene, Jr., and Mission Director Butler. Officials of Government, State trading agencies, Ministries directly concerned with development, banking organizations, and the Nile Delta Authority were present.

Mission members were quick to point out that many Egyptian contracting firms, with excellent engineering and technical skills, are operating in surrounding areas, where financing may not be an obstacle to U.S. sales; for example, Egyptian contractors are assisting oil-rich Libya in irrigation and housing projects. More frequent and longer visits by U.S. firms are necessary, however, to determine the scope and details of these projects. Such visits are particularly essential in view of increasing competition from other countries, notably Japan, Germany, the United Kingdom, and France.

Butler summed up the situation: "The visit by the mission showed that, despite other considerations, American businessmen are welcome in Egypt at present. There is a stated preference for U.S. machinery and equipment, and its accompanying technology is highly regarded by the Egyptian community as is the proven record of after-sales service and availability of spare parts.

"These sentiments were repeated by every businessman, high-level Government and financial official on whom I made personal courtesy calls. Additionally, these same individuals, particularly the financial and banking officials, expressed their desire for foreign investment in the country and said that guarantees by the Government of Egypt were assured."

Broad plan

Total costs of the Nile Delta Project are estimated at $150 million, of which a $26 million credit has been approved by the World Bank. The plan includes mechanical installation of covered tile drains, construction of pump stations, remodeling of open drains and structures, and providing facilities for equipment maintenance

DISCUSSING DETAILS—*In Cairo, mission member Joseph Rossetti, Allis-Chalmers, Milwaukee, talks with a local businessman about the kinds of equipment the U.S. company can supply.*

and technical training. The objective is to lower the water table, reduce soil salinity, and improve ground water control and surface drainage in the area—thus raising crop yields by at least 20 percent.

Among other projects for which Egypt has sought World Bank assistance are railway modernization, for which a $30 million loan has been approved; and tile drainage in Upper Egypt and cotton ginning rehabilitation, both under study by the Bank.

Mission member Harvey Raasch, Koehring Corp., Milwaukee, commented that the mission was timely in a part of the world where political problems pose some difficulties. He said, "We consider that the business sector there displayed an overwhelming preference in favor of U.S. goods and services and its people."

Francis E. Cassidy, J. I. Case Co., Racine, Wis., said: "The primary goal of the mission, the Nile Drainage Project, was thoroughly discussed and each member was afforded the opportunity to present his company's capabilities in equipment, parts availability, service and general technology."

W. Gerald Waite, International Harvester Co., Chicago, stated: "Thanks to the mission, contact was established with business firms which hitherto could not be readily visited. This also applies to Government officials (Egyptian) who received us primarily as members of the mission, and secondly as representatives of our respective companies. This particularly refers to the call on the Nile Delta Drainage Authority—a visit such as that would not have been possible under other circumstances."

Edward Enright, General Electric Co., New York, commented: "The people and businessmen want to do business with the United States, they are warm, friendly, and openly express preferences for U.S. products. They believe many U.S. product lines are far superior to those from other locations."

Future projects

Various government officials presented future projects to mission members and requested that preliminary steps be taken for planned purchases. This action by the Egyptian officials indicated their desire to purchase U.S. equipment, the report pointed out, concluding:

"The main problem encountered was the need to satisfy the Egyptian contractor's equipment requirements on an immediate basis. If financing and/or foreign exchange were available, it is conceivable that each mission member would return to his office with a brief case bulging with orders.

"The solution is to provide the required credit facilities through Government or private financial institutions."

The other mission participants were: Emile Assaf, FMC Corp., Los Angeles; Azzeddine Cherif, Barber Greene Co., Aurora, Ill.; Andrew N. Ferretti, Ferrex International, Inc., New York, representing Vermeer Manufacturing Co.; Joseph Rossetti, Allis-Chalmers, Milwaukee; and Forrest Stewart, Ingersoll-Rand Corp., Woodcliff Lake, N.J.

Tool Makers View Market In Poland

A planned increase of 86 percent in the output of Polish metal working industries over the next five years was pointed out in Warsaw to a delegation of machine tool builders from the United States last month. For this expansion, some purchases could be from U.S. suppliers.

The delegation, a 13-member trade mission organized by the National Machine Tool Builders' Association, reports that the Poles want to eliminate their obsolete production equipment and obtain the most modern, sophisticated equipment to achieve their goals.

Talking with officials of Government trading agencies such as Metalexport and Motoprojekt, and of the seven factories and laboratories that were visited, the mission received many requests for quotations. In response, prices on some $50 million in machinery have already been offered.

Licenses, prices, and credits seem to be the problems of most concern to the Polish buyers, according to James A. Gray, executive vice president of the tool builders' association and director of the mission. "They are aware of the efforts being made in the United States to reduce licensing restrictions. They feel that the present restrictions are a barrier to increased sales as they are able to buy machines from other countries without the licensing problem.

"Although U.S. prices are often somewhat higher than those of foreign competitors," Gray said, "the Poles indicated a strong desire to obtain American equipment because of its reputation for ruggedness, long life and ease of maintenance. They declared that credits must also be made available for large scale purchases from the United States. They have been obtaining such credits from other machine tool producing countries."

Worldwide Business Outlook

Import Rise To Accompany Swedish Economic Rebound

"If a new Scandinavian product appears in the marketplace, chances are that a Norwegian conceived it, a Swede is making it, and a Dane is selling it."

Without commenting on the validity of this saying with respect to the other two countries, Walter Lubkeman, Assistant Commercial Attache at the U.S. Embassy in Stockholm, confirms that the Swedish talent for industrial organization and production is undeniable. In just over half a century, Sweden has transformed itself from a nation of farmers, foresters and iron miners into a highly advanced industrial economy with the second highest—after the United States—per capita gross national product in the world.

Problems, strengths

This rapid transformation has engendered internal strains as well as criticism of the results of Sweden's "middle way" economy. High taxes and unemployment, and uncertainties about the timing and strength of the economic upswing and about Sweden's future relationship with the Common Market all cause concern.

Yet, Swedish industry is basically strong, increasingly international, and is still competitive—as indicated by the 9 percent increase in Swedish exports last year. Sweden also offers relatively good prospects as a market for American goods. Swedish foreign exchange reserves and balance of payments are much improved. Moreover, the chances are good that it will recover from its recession this year.

Last year witnessed a disappointing economic performance in Sweden with virtually no growth in real GNP, rising unemployment, and almost stagnant industrial production. This is in sharp contrast with the real growth rate of 4.3 percent in 1970 and an annual growth rate of about 4.7 percent during the 1960s.

What are the prospects for 1972? Most observers predict an upswing in business activity, though business and banking spokesmen appear more cautious than government leaders as to the timing and strength of the economic resurgence. The Government projects growth of 3.5 percent in real GNP this year and an approximate 8 percent import increase.

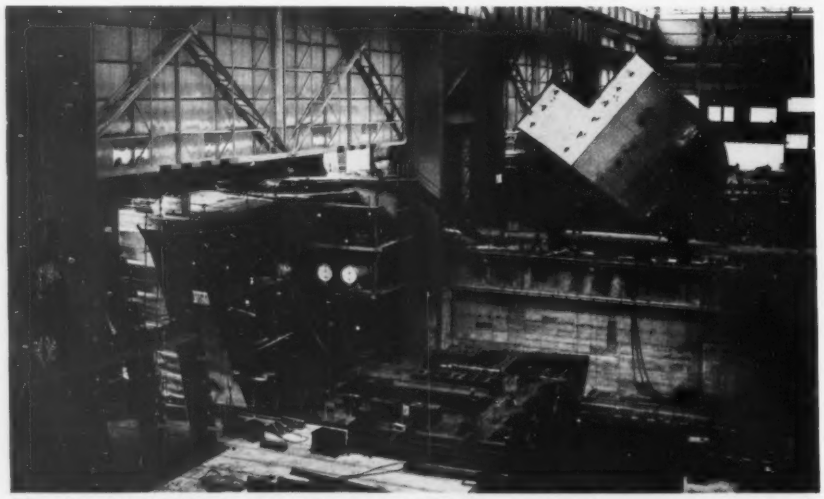
While it is anticipated that a strong increase in imports of consumer goods will lead the way, imports of such investment goods as computers should also show good growth. Imports of apparel and finished textile goods may increase due to the closure of Swedish plants in this field. Suppliers of office equipment and construction equipment and materials should find new opportunities due to lifting of the domestic 25 percent tax on non-priority investment.

New opportunities

The expected upturn in Sweden's economy, coupled with the recent exchange rate changes, will offer new opportunities for U.S. exports. However, U.S. goods will continue to face increasingly intense competition for this attractive market. Sweden, due to its generally free trade policy, is being offered products from all manufacturing countries. Sweden's figures show that the United States provided $566 million of imports in 1971; the U.S. share declined compared with 1970 but the United States remained in third place after West Germany and the United Kingdom. U.S. industry will have to accord the Swedish market continuing and serious attention in order to maintain, or hopefully, increase its share.

Lubkeman offers the following suggestions and observations to U.S. firms either seeking to enter the market or to improve their sales.

► With few exceptions, U.S. products are best received if offered through either a Swedish agent distributor or, for those able to afford the investment, through



SWEDISH INDUSTRY IS BASICALLY STRONG—*Sweden has some economic problems but industry remains sound. Here, a view of a shipyard at Gothenburg.*

a subsidiary affiliate. Offices in other European countries usually cannot properly service this market and generally are not favored by the Swedish end-user, who places high priority on the local availability of parts and trained technical personnel.

► U.S. exporters generally are regarded as being more impersonal in their relationships with Swedish representatives than, for example, British or German firms. Leading Swedish agency firms state that they seldom meet with anyone from the U.S. principal.

► Prompt attention should be given to correspondence with Swedish firms.

► U.S. companies have a reputation for being quite ruthless in severing relationships with successful Swedish agents-distributors. As several local agents and officials have said: "A Swedish agent cannot afford to sell too little or too much for American principals because in either case the agency is promptly taken away."

► U.S. companies should quote c.i.f. prices to Swedish firms rather than f.o.b. U.S. port of exit.

► U.S. firms should consider easier credit terms to reputable Swedish agents. Here again local agents assert that suppliers in other European countries as well as Japan offer payment terms longer than the usual 30 days insisted on by U.S. suppliers.

► Testing is required for many kinds of electrical equipment. Applications are submitted by the Swedish representative or the manufacturer.

Since inauguration in March 1965 of the U.S. Trade Center in Stockholm, commercial exhibitions have resulted in more than $7 million in floor sales, $187 million in projected sales, and appointment of 392 agencies-distributorships. Facilities are available at no cost for individual showings, technical seminars, sales meetings and the like by U.S. companies or their overseas representatives.

U.S. Set For More Gains In Denmark After Outpacing Competition Last Year

This should be another good year for U.S. exports to Denmark, reports Robert G. Kemp, Commercial Attache at the U.S. Embassy in Copenhagen.

In 1971, American sales to Denmark increased 16 percent, to almost $400 million, maintaining fourth place in this small but important market. This was a remarkable performance since Denmark's total imports grew only 3.3 percent.

EEC or EFTA?

Danes will go to the polls, probably in September, to determine whether to join the enlarged Common Market as a full member or to stay outside with some present EFTA partners. The referendum will decide finally whether Denmark, after years of negotiating, will join the United Kingdom, Ireland, and Norway in a trading club that will represent the largest single market outside the United States.

Danish government planners look to Market membership as the only reasonable solution to a disturbingly large balance of payments deficit, one-half billion dollars in 1971. Through participating in the Common Agricultural Policy, agricultural exports alone are expected to provide a net increase in export earnings of $100 million the first year after EEC membership takes effect, which should rise to almost $200 million by the end of the five-year transitional period in 1978.

These anticipated benefits would ease pressure on the balance of payments sufficiently to permit expansion of imports of investment goods for industry. Remaining outside the community will require, according to government experts, an even greater dependence on industrial exports without the necessary availability of investment funds and, possibly, even manpower.

The projections of this report are, therefore, based on the assumption that Denmark will ratify

PROMINENT DANISH USER OF U.S. EQUIPMENT—*Tuborg uses American machinery at its new bottling plant, above. U.S. sales to Denmark rose 16 percent last year, and prospects are good for continued growth of exports during 1972.*

Common Market membership, and begin the transitional period to full membership in 1973.

In October, the new Social Democratic Government, alarmed over the steadily worsening balance of payments deficit, imposed an import surcharge of 10 percent. The surcharge, expected to yield about $300 million in revenue, affects about 50 percent of Danish imports and is impartially levied against EFTA as well as non-EFTA imports. The rate will drop to 7 percent July 1, 1972, to 4 percent Jan. 1, 1973, and expire April 1, 1973.

Little effect on imports

In spite of considerable initial opposition, particularly from manufacturing industries, the surcharge appears to have had little effect on what was already modest import growth. The major raw agricultural products, and many machinery and equipment items, both strong U.S. export areas, are not affected by the levy.

U.S. agricultural sales to Denmark in 1971 topped the 1970 record by 11 percent. Sales would undoubtedly have been higher had it not been for the prolonged dock strikes.

American exports to Denmark of machinery, except electrical, were up by 57 percent in 1971. The single big ticket item accounting for this spectacular increase was jet engines. Other items that increased substantially were meat processing machinery, printing machines, data processing machines, bottle washing machines and institutional catering equipment.

Market prospects appear to be most favorable for food processing, book printing, and data processing equipment. Construction equipment remains a promising field because of the preference for original U.S. equipment rather than equipment from U.S. foreign subsidiaries.

Denmark's imports from the United States of electrical equipment during 1971 dropped 17 percent compared with 1970. The decline was almost totally accounted for by two items: radar and navigational equipment, and transistors. This drop is explained by general slackening of investment activity and, particularly, a reduction of inventories. Imports were up for starting and ignition equipment, microphones, low-frequency amplifiers, and parts for radio and TV. In other fields, such as welding equipment, telecommunications equipment, power handtools, and household equipment, imports remained fairly stable. According to trade sources, prospects remain bright for electronics products of U.S. origin.

The United States gained in sales of surgical, medical, and veterinary instruments. Highly specialized instruments are most promising, and generally are able to hold their own in the Danish market where competition from other nations is extremely keen.

The market for aqueous ammonia, historically dominated by the United States, began to slip in 1971 when non-U.S. suppliers moved in with greater force. This opening up of the market has tended to squeeze prices. Nitrogeneous products of U.S. origin also have a good share of the Danish market. Penicillin and other specialized pharmaceuticals enter only in small quantities, but the market will always be open to specialities of this type.

Continued growth

For the next 12 months U.S. exports should perform about as well as in 1971. Economic activity is expected to increase about 10 percent over last year, and imports can be expected to grow at a somewhat lesser rate.

Regardless of whether American exporters will now have an easier time booking orders at a relative price advantage, 1972 will be a year of opportunity. Danish importers will doubtlessly be looking for bargains in the U.S. market, but their primary interest will be equipment of advanced design, probably of highly specialized application, with prompt delivery and attractive financing terms.

Cameroon Seems Off To New Start Following Economic Problems In 1971

After a perceptible pause in 1971 the Cameroonian economy seems off to a new start, reports the U.S. Embassy in Yaounde.

Poor weather conditions affected the whole country in 1970-71, so that export income was hurt and the subsistence economy seriously affected. The resulting decline in demand, combined with some friction between the administration and the business community, depressed the private sector until the latter part of 1971. Since then agricultural prospects are looking up, effective dialogue between public and private sectors has revived, and official investment promotion operations continue to improve.

Five-Year Plan

The Third Five-Year Development Plan introduced in August carries forward the national objective of doubling real per capita income over a 20-year period, while maintaining an equitable distribution of wealth. The largest share of public development expenditure is devoted to the transport sector, at present a critical constraint to development. It is expected that agriculture will retain first place among productive sectors.

There is every reason to expect

that Cameroon will continue to obtain foreign assistance support for public development programs and to enjoy good access to commercial credit for self-liquidating projects; however, the ambitious scale of the Third Plan makes it imperative that growth in recurring public expenditures be restrained so as to realize savings to apply to investment.

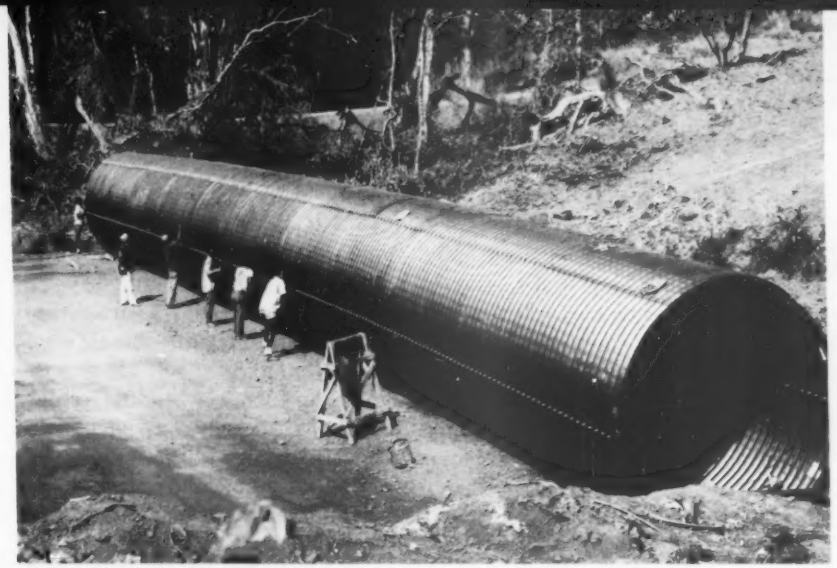
American businessmen interested in African operations are advised to focus on the Cameroon development program. Public sector activities and projects, either self-financed or supported by international institutions, can spin off sizeable individual purchases that offer American firms new to Africa a foothold in this growing market. The recognized need for private foreign investment, plus a general feeling that American technology and business methods would be useful here, contribute to a favorable business climate.

Better chance for U.S.

Since gaining political independence the Cameroonians have developed other economic and commercial ties to balance their economic dependence on France. The preferences which linked former French Africa to France are now supplanted by a system of preferences between the European Community as a whole and the African adherents to the Yaounde Convention, of which Cameroon is a leading member. These preferences were sharply reduced in January 1970 so that suppliers outside the Common Market might have a better chance.

The rationing of foreign exchange was discontinued in 1971 in the latest step in lowering barriers to international trade. The only remaining import restrictions are licensing requirements that protect domestic industry and control trade in health-related products.

It should be noted, however, that only approved importers may handle goods from outside the Franc Zone, a measure which imposes a barrier of inconvenience on goods from outside the Zone. The solution that has been adopted by representatives of several successful American equipment lines is to appoint a local representative from the list of established importers.



FROM THE U.S. TO CAMEROON—*Some 6,000 metric tons of corrugated steel culvert material purchased from U.S. Steel for use in construction of the Trans-Cameroon Railway is one of several big U.S. sales to Cameroon recently.*

The most obvious way of obtaining a foothold in the Cameroon market is by focusing on public sector purchases, usually substantial and shaped at least in part by the diversification effort. In the past year American firms have made important sales in aviation and military type transport equipment. An American company recently completed a major microwave telecommunications system linking Yaounde with Fort Foureau in the north, and Americans were engaged to manage publicly-owned hotel property and perform investment promotion services.

The Government is likely to continue to be a good customer for heavy equipment and engineering services (although the French and Italians are well-entrenched in the latter), broadcasting and telecommunications. Public tenders are periodically launched for pharmaceuticals and agricultural supplies, and veterinary supplies will probably be sought in greater quantities.

A wide range of consumer goods, farm supplies, and small equipment is sold through the government trading company SONAC, which is constantly alert to competitive new supply sources.

Investment policy

The Government seeks increasing involvement of private foreign resources in the economy. It is recognized that national savings and foreign aid alone cannot increase investment at the desired rate. Foreign technical and managerial know-how are also actively sought. Tax privileges for private ventures are negotiated according to their contribution to national objectives. The Government may participate in equity but is generally disposed to assign management control to the private partner.

Capital can generally be raised in Cameroon at attractive interest rates. The administration is developing an effective service which facilitates contacts, travel, and investigations preliminary to the decision to invest. Despite the pronounced French flavor of Cameroonian society, there is evidence of warmth toward American business, which enjoys a good local reputation for management, technical capability, and innovativeness.

Greece, Riding Tourist Crest, Looks To U.S. For Equipment, Services

The Greek tourist industry and related fields are expected to show spectacular growth during the rest of this decade.

Dan A. Zachary, Commercial Attache at the U.S. Embassy in Athens, notes that tourism earned more than $305 million for Greece last year. U.S. exporters shared in this business, notably in sales of air-conditioning equipment, kitchen refrigeration units, water purifiers, aviation equipment, airport catering services, airport design and feasibility studies, and hotel design and management. The outlook is for increased sales of other product lines and services.

Mighty industry

As recently as 1953 only 102,000 foreign tourists visited this beautiful, historic land. From such modest beginnings has risen a mighty industry. Indeed, tourism might rightfully be called Greece's takeoff industry. During the present calendar year, for example, the National Tourist Organization (NTO) expects to welcome three million foreign visitors to Greece and realize earnings in excess of $400 million.

Projections for the future are equally promising. Greece expects six million tourists bringing one billion dollars in foreign exchange by 1977. By 1980 the number of foreigners visiting Greece is expected to reach eight million—almost equal to the country's total population!

American firms have already enjoyed considerable success in tourist equipment and related sectors. More important, however, is the prospect for future sales by U.S. firms.

The NTO is working to increase hotel capacity by 300,000 beds during the next five years. It is planning golf course complexes, yacht marinas and camping sites, and is actively seeking ways to develop winter sports areas and year-around tourism. The Government is expanding schools for the training of tourist industry personnel. Projects to construct a new Athens airport, modernize the railway system, and expand the cruise passenger and car ferry fleet are planned. Expansion of summer music and theater festivals are other projects also under consideration.

During 1972 the Greek Government is providing $70 million to support private enterprise in tourist investment. Another $66 million is being allocated this year to complete tourist infrastructure projects. The new Five-Year Plan budget will increase these amounts substantially.

An important but undetermined share of U.S. exports to Greece ($150 million in 1971) has been tourist industry products and services. One area where the United States has maintained predominance is air-conditioning and refrigeration equipment for hotels. Water purifiers, water filters, kitchen and food warming equipment, juke boxes, garbage disposal units and outboard motors are some of the product lines that have sold well.

Even more noteworthy from a balance of payments standpoint has been U.S. participation in the field of aviation. In addition to equipping most of the Olympic Airways fleet, an American firm has made a feasibility study for the future Athens airport and for expansion of the present airport. A U.S. firm provides the catering service at the international airport.

Also, a good part of the Greek railway fleet is equipped with U.S. engines. U.S. manufacturing firms in Greece are also producing products for the tourist industry, i.e., sanitary ware, plastic products, soft drinks, packaging materials, yachts and food products.

One factor certain to influence Greek planners and investors is that Americans make up the most important segment of tourists. U.S. citizens provide the largest single group and almost 60 percent of total tourist earnings. For this reason Greek interest in American-level quality and sophistication in hotel and resort design is considerable, and tourist complexes that can attract luxury-class American and other tourists are in short supply both in Athens, on the islands and in other tourist areas around the country.

One American-managed hotel is already operating, another is under construction and several more are under serious consideration. The possibility for hotel and resort feasibility studies by U.S. firms appears excellent.

Other U.S. opportunities

Other opportunities exist for U.S. firms. Greece has only one 18-hole golf course and not one bowling alley. Only a fraction of the country's hotels boast swimming pools. Athens authorities wish to build a modern race track to replace an outdated one that will be torn down to make way for a hotel project. A large amusement park for the capital is under consideration. Possibilities exist for expanded public relations programs in the United States to promote Greek tourism and for American performers to participate in Greece's summer festivals.

On the product side, antipollution equipment to preserve Greece's great natural beauty will open up sales possibilities. Resort developers, for example, must now indicate how they will handle their pollution problem.

Sanitation equipment, de-mineralizers, service industry machines, packaging equipment, a wide range

of safety equipment, the latest styles in camping, boating and underwater diving gear, small aircraft and food vendors offer possibilities for sales.

Also imported from the United States are building materials such as insulating material, floor tiles, plastic paints, aluminum profiles for windows and equipment for folding doors and panels.

Whether American firms will get a substantial piece of the action depends on many things, some unfavorable to U.S. exports. But U.S. firms also have some things going for them. These include the prestige American goods enjoy and the desire in Greece to provide the best for the most important segment of Greece's tourist trade. Further, the currency realignments (with the drachma remaining tied to the dollar) have substantially improved the price position of U.S. suppliers in relation to such strong competitors as Germany.

Venezuela's Major Tariff Overhaul Will Influence Future Trade Patterns

Venezuela's tariff structure is undergoing a major face lifting with definite implications for U.S. trade relations.

A special commission named in January to overhaul the country's tariff system hopes to complete its task by July 1, according to George Falk, Commercial Attache at the U.S. Embassy in Caracas, and the resulting legislation will figure heavily in the shaping of Venezuela's future trade patterns.

The government's desire to modify its tariff structure was one of the underlying reasons for Venezuela's termination of its Reciprocal Trade Agreement with the United States, which expires on June 30 of this year. A further consideration in the denunciation of the Trade Agreement, according to Venezuelan officials, was that preferential tariff concessions granted to the United States complicated negotiations for entry into the Andean Pact as well as any negotiations within the Latin American Free Trade Association (LAFTA) on tariff reductions.

From the standpoint of the American exporter, there may actually be little loss in trade advantage in a restructured tariff schedule. The so-called benefits accruing from various tariff concessions granted the United States under the Trade Agreement have in practice been barely operative in recent years.

In many instances, formidable non-tariff barriers have been erected in the form of import license requirements and quotas which the Venezuelan Government considered necessary to protect certain local industries. The proportion of trade in items for which a tariff advantage had been granted the United States began to decline after 1959 with the imposition of trade restrictions by the Venezuelan Government.

Tariff rates under the restructured system will presumably be applicable to all nations with the exception of any common market arrangements.

Questions to be answered

At present, the decision of paramount importance confronting the commission is the overall philosophy that will guide the structuring of the new tariff system. Will the Commission opt for high tariffs to protect local industries? Will it seek other means of achieving the same end through non-tariff trade barriers? Or, on the other hand, might its recommendations be such as to clear the way for a freer flow of imports? Answers to these questions are now being formulated.

Perhaps by far the most significant and difficult decision looming concerns establishment of guidelines to govern the levying of actual duties assigned to each tariff classification. Industries in Venezuela which have long enjoyed the benefits of a protective policy are arguing for continuation of protection through high tariffs. Thus, an agonizing decision which the Government will have to make is whether to continue protection or to place tariffs at a level that might stimulate inefficient industries to greater competitiveness. It is believed that in the final analysis both alternatives will be employed—certain industries will be forced to become more competitive, while others will receive continued protection from external sources.

Militating in favor of lower tariffs is Venezuela's need to improve substantially its export promotion program. To sustain its economic growth Venezuela must look beyond its own market of eleven million, as indeed it has been doing. Venezuela is presently negotiating for entry into the Andean

U.S.-VENEZUELA TRADE—*U.S. suppliers to Venezuela will soon face changed import regulations. This new chemical plant uses all U.S. equipment.*

Pact; has become deeply involved in the Caribbean area; has exhibited interest in expanding trade relations with the other leading nations of Latin America; has joined the Latin American Free Trade Association; and is also looking toward Europe to expand its exports. Obviously, Venezuela's reach for new markets cannot be accomplished by fostering protected, inefficient, and non-competitive industries.

Low or moderate tariff rates would also bring other benefits to Venezuela. Such rates would enable consumers to enjoy lower retail prices. This would also tend to hold down the rate of inflation, which rose by about 3 percent in 1972 but could increase at a more rapid rate in view of the substantial increases in government expenditures expected in the next two years and the large public liquidity currently available.

Other side of the coin

Examining the other side of the coin, there are arguments in favor of a high tariff structure, as, for example, those concerning Venezuela's possible entry into the Andean Pact and future tariff negotiations within LAFTA. In order to negotiate from a position of strength, it would be advantageous for Venezuela to come to the talks with a list of high tariffs whose gradual paring down would permit the granting of concessions by Venezuela. Additionally, higher tariffs would provide a limited source of additional revenue and, at the same time, serve as a brake on the importation of luxury products.

The many arguments both favoring and opposing a high tariff structure make the commission's task extremely difficult. On balance, however, low tariff rates would serve to further Venezuela's economic development. Additionally, it is doubtful that any restrictive rates will be placed on raw materials and capital goods which Venezuela requires to develop its industrial sector.

Venezuela's economy has been growing at an annual rate of approximately 5 percent and, barring unforeseen developments, there is no reason for the growth rate not to continue at approximately the same pace. For certain industries, this continued expansion bodes well for the market potential of Venezuela. Among those American enterprises most likely to find a place in Venezuela's growing economy are producers of food processing and packaging equipment materials for the hotel and tourist industries, materials handling equipment, equipment for the construction industry, and advanced office equipment. To further this last mentioned industry, the Department of Commerce will stage a trade show in Caracas in October of this year.

All things considered, should Venezuela adopt a healthy, constructive and well thought-out tariff policy, and eliminate its major non-tariff trade barriers, there is every reason for continued growth of U.S. business interests in Venezuela to the mutual benefit of both countries.

U.S. Can Maintain Its Sales Level In Less Expansive Peruvian Market

U.S. sales to Peru should continue at a high level this year despite a less vigorous total import growth rate.

Following a substantial foreign exchange outflow in 1971, the Government is attempting to hold imports to a 10 percent growth rate; it has raised duties on luxury and non-essential consumer goods and added to the list of prohibited imports. Even more important, a new foreign exchange quota system for importers is being used to cut back on imports of luxury and non-essential goods, in favor of increased purchases of capital goods and raw materials.

David Post, Commercial Attache at the U.S. Embassy in Lima, points out that U.S. exporters nevertheless have enhanced opportunities to export to Peru in selected commodity lines because the recent currency rate changes make U.S. products more competitive in the Peruvian market. This is particularly true as regards competition from Germany and Japan, major U.S. competitors in Peru. Also of importance to U.S. export prospects is continuation of equipment replacement, begun in 1971, as firms take advantage of tax breaks available for investment of profits in new enterprises or in improvements to existing operations. Additionally, increasing imports of mining and petroleum equipment in 1972 will help boost U.S. sales.

Peruvian imports during January-October 1971 reached $621.7 million, up 16.7 percent over the same period in 1970, as the higher level of industrial activity during the year brought increased imports of raw materials, semi-manufactures and industrial machinery.

Trend continued

U.S. exports to Peru also rose during the same 10-month period, but by only 9.2 percent to $188.8 million. Hence, the U.S. market share dropped from 32.5 percent in 1970 to 30.4 percent in the first 10 months of 1971, continuing a trend that began after 1964 when the U.S. share was 42 percent.

In 1972 the U.S. share of the market is forecast at between 30 and 31 percent, which means the United States should hold its own in a less expansive and more competitive market. No marked shifts are anticipated in the types of goods supplied. The U.S. strength

is in high technology machinery, equipment and instrumentation, vehicles and parts, and aircraft and parts, plus a wide variety of agricultural products, raw materials and semi-manufactures, and these products will be in even more demand as Peru's new industrialization program gets under way.

The most significant recent development affecting trade is assignment of annual foreign exchange quotas to importers. So far the system has not been excessively restrictive and where quotas are set too low the Government generally grants increases. It does, however, introduce an additional element of uncertainty into Peru's international trading system. Many importers are hesitant to take on new lines or to lay in inventories in fear that their quotas will not cover needs.

Peru's projected General Law of Commerce, which is to set forth regulations under which commercial establishments, including importers and exporters, will operate is expected to be promulgated in mid or late 1972. A greater measure of government control over international trading activities of private firms is generally anticipated.

Goods needed for Peru's Five-Year Development Plan will probably get high priority and will offer major export possibilities. Although the Plan calls for many new major projects, few of them will be far enough along in 1972 to require a large volume of imports. Exporters, nevertheless, should be aware that by the end of 1972 Peru hopes to obtain an estimated $340 million in foreign long-term credits for its plan, and a substantial portion will be committed to imports during 1972 and much more in 1973.

Planned expenditure of these credits are as follows: $39.8 million in agriculture, $16.8 million in fisheries, $65 million in mining, $93.1 million in industry, $17.8 million in power, $60.4 million in transport, $6.4 million in communications, $24.9 million in water supply and sewerage, $3.4 million in education and $7.4 million in health. As a rule, companies or foreign Governments offering the best credit terms will be the chosen suppliers of goods for projects.

HEADED FOR PERU—*The first of eight truckloads of concrete curing compounds, retarders and sealants moves from Chem-Masters Corp. in Chagrin Falls, Ohio. A total of 150 tons will be used for construction of a new airport at Iquitos, Peru.*

In addition to these areas of sales possibilities, U.S. exporters should not overlook Peru's already established industries.

Take a hard look

In the general machinery area U.S. exporters should take a new hard look at their competitive position in the Peruvian market in view of the recent currency revaluations. Many Peruvian machinery distributors are now searching for U.S. machinery lines based on the better comparative U.S. prices now available.

Of particular interest to U.S. machinery exporters should be the Peruvian automotive vehicle parts and accessories industry which is being created to provide local content parts for Peruvian-made cars, trucks and buses. Chrysler-Peru, for example, has already reached the 35 percent local content level and Toyota, Volkswagen, Nissan and Volvo must, by law, buy more and more parts locally. Peruvian parts manufacturers will be looking for machinery to supply increasing demand for their products.

The beer industry is also in a healthy expansion. U.S. manufacturers of stainless steel tanks, automated controls and measuring instruments are already major suppliers and should be able to capitalize on the expansion.

Another area of promise is oil field equipment and supplies. Over the past several months seven groups of oil companies have signed contracts to explore for oil in Peru's Amazon region. These firms will be in the market for the entire range of products normally needed by oil producers plus special items, including helicopters, to enable them to work in Peru's inaccessible jungle area.

Without sizable net inflows of foreign capital in the next few years Peru's balance of payments probably will be in serious deficit if the Government maintains its commitment to Plan targets. Plan projections show deficits mounting at a fast rate, but to the extent that external financing is not found for development projects the projected deficit is likely to be reduced along with some of the Plan targets.

U.S. firms are well represented in Peru and trading relationships are well established. However, local representatives cannot compete when they are unable to offer competitive financing and service terms. The United States must meet the challenge or the Peruvian market will slowly but surely slip away.

World Trade Actions

Iran Cuts Import Levies; Other Trade Moves Listed

Iran: The national import policy for the import year ending March 20, 1973 features reductions in import levies on a number of consumer goods and industrial items which are intended to hold prices down and subject their Iranian producers to a greater degree of competition.

The Commercial Benefits Tax (CBT), levied on most imported goods in addition to customs duty (CBT is also levied on domestically produced goods), has been eliminated on specialty pharmaceuticals, antibiotics, powdered milk, pulses, components for motorcycles and electric fans, raw materials and spare parts for heavy industry, and certain machinery purchased by the agricultural cooperative. The new policy also reduces the rate of CBT on butter, cheese, margarine, canned meat, sheet glass, washed and combed wool, and wool yarn.

Imports of ammonium sulphate and polyvinyl chloride, formerly permissible without prior conditions, will now require prior permission from the Ministry of Economy, a measure designed to protect Iran's new petrochemical industry.

Swaziland: The Land Speculation Control Act of 1972, in effect since Feb. 18, prohibits the sale or transfer of land to non-citizens unless permission is received from the Land Control Board or an exemption is granted by the Minister of Commerce. The Act is reportedly intended to halt land speculation and to slow inflation of land prices. Sale or transfer of stock to non-citizens by a Swazi corporation owning land in Swaziland is also prohibited by the Act. Decisions of the Land Control Board may be appealed to the Land Control Appeals Board, whose decisions are final. The Minister of Commerce has been granted the power to exempt individuals or corporations from the Act if the sale of land to a non-citizen is deemed to contribute to Swaziland's development. Copies of the Act are available from the Africa Division, BIC-884, U.S. Department of Commerce, Washington, D.C., 20230 (202-967-5089).

Ivory Coast: The latest national Development Plan is expected to become available in an English-language summary in May. Information about the Plan, which outlines public and private investment objectives in this dynamic West African nation over the five-year period 1971-75, can be obtained from Africa Division, BIC-884, U.S. Department of Commerce, Washington, D.C. 20230. A copy of the original French-language text is available for public reference only.

Ecuador: The Government plans to hold a World Petroleum Symposium in Quito from Oct. 22-31. Representatives of both private and public interests are invited to attend this meeting, and may obtain further details by writing directly either to the Colegio de Ingenieros (Association of Engineers), Quito, Ecuador, or to Jaime Durango, Commercial Counselor, Embassy of Ecuador, 2535 Fifteenth St. NW. Washington, D.C. 20009.

Spain: The Spanish Government announced in Decree No. 189/1972, published in the *Official Gazette* of Feb. 7, that the antidumping duties imposed on imports of polyethylene (*Commerce Today*, Sept. 20, 1971) have been eliminated with effect from Jan. 1.

Lebanon: The United Nations Industrial Development Organization (UNIDO) has announced that Lebanon will host the seventh in its series of meetings to promote industrial projects in developing countries. The conference, scheduled for June 19-23 in Beirut, follows similar efforts in Africa and the Far East. The meetings will provide a forum for face-to-face contacts between Lebanese Government officials and industrialists and interested foreign investors. Interviews will be arranged for discussions on the specific projects proposed—for both new ventures and expansion or improvement of existing enterprises.

Numerous projects in the food processing, textile, metalworking, electrical, plastic and furniture sectors have already been pinpointed as attractive by UNIDO experts. These are the areas which have led the boom in Lebanese industry since the mid-1960's.

Besides a discussion of investment and licensing possibilites, the meetings would appear to be an ideal place for American manufacturers of production equipment in these industries to learn more about the Lebanese market.

For more information, contact: Robert Cox, UNIDO, United Nations, New York, N.Y. 10017.

Mexico: The Director of Credit announced March 10 that the Government will require registration of all loans by private foreign banks, including disclosure of amounts, terms, and interest rates. He indicated that the volume of such loans had increased significantly since mid-1971 due to the widening differential between Mexican and foreign interest rates. The present volume was considered excessive, since it increases the economy's vulnerability to movements of short-term funds.

It was also announced that new regulations shortly will be established governing the opening in Mexico of offices of foreign banking institutions.

International Business Reports

Annotated Directory of Regional and National Trade and Economic Journals. 153pp. $5. Export Promotion by Private Sector Organizations. 295pp. $10. Published by UNCTAD/GATT, Geneva.

The Directory of Trade and Economic Journals is designed to furnish the principal sources of information on current economic and trading conditions in foreign countries. It lists more than 500 titles which deal broadly with commercial, industrial or economic matters and are published in English, French or Spanish. Included for each journal is full ordering information, its essential characteristics, main geographic coverage, and analysis of contents according to main categories of information. The first part of the Directory contains journals with world, continental or regional coverage and the second section lists national journals in alphabetical order of countries.

The purpose of the Export Promotion handbook is to survey the types of private sector and mixed public-private organizations that are engaging directly or indirectly in export promotion, and to describe in a broad way the kinds of activity being undertaken. It is intended to be used as a reference work.

Write: International Trade Centre, UNCTAD/GATT, Palais des Nations, 1211 Geneva 10, Switzerland.

1971 Fringe Benefits Survey. Published by the American Chamber of Commerce in the Netherlands. $20.

Based on reports from more than 200 companies in the Netherlands, both American and Dutch, this survey deals with overtime pay, vacations, bonuses, pensions, medical plans, moving expenses, educational allowances, etc. It should be of particular interest to U.S. firms planning to establish in the Netherlands.

Write: American Chamber of Commerce in the Netherlands, 5 Carngieplein, The Hague, Netherlands.

The '71 Revenue Act. Published by Research Institute of America, Inc. 202 pp. $19.50.

The Revenue Act of 1971 makes significant changes in the tax code affecting business. Of particular importance to exporters are provisions which permit U.S. firms to set up Domestic International Sales Corporations entitled to defer tax on 50 percent of export income. The RIA describes in some detail what it takes to be a DISC, how to go about setting up one, and how to meet the export income and assets tests. Illustrations show tax savings from DISC and the application of special intercompany pricing rules. A complete reprint of the DISC sections of the Internal Revenue Code is included, as well as analyses of the restored Investment Tax Credit, new Class Life Depreciation System and other provisions of the Revenue Act.

Write: Research Institute of America, Inc., 589 Fifth Ave., New York, N.Y. 10017.

Surveys of African Economies, Volume 4. Published by the International Monetary Fund. 477 pp. $5 (university libraries, faculty members and students $2.50).

The fourth volume in this series analyzes the economies of five countries — Republic of Zaire (formerly Congo), Malagasy Republic, Malawi, Mauritius and Zambia. Unlike the earlier volumes, the countries discussed in this publication are not joined together by common institutions. They are all developing countries, though their economies differ markedly in size, structure, and growth rate, and the IMF states that in a number of ways they are illustrative of the different types of economies found in Africa.

Write: The Secretary, International Monetary Fund, 19th & H Sts. NW., Washington, D.C. 20431.

The American Chamber of Commerce in Italy Directory for 1971-72. Milan. 448 pp. $25.

Contains an alphabetical listing of members of the American Chamber of Commerce in Italy, a classified list of members, and a list of U.S. firms operating in Italy.

Write: American Chamber of Commerce, Via Agnello #12, 20121 Milan, Italy.

Calendar For World Traders

Apr. 19—Seattle—Briefing on banking and insurance for exporters, 8021 Federal Office Bldg., 10 a.m.

Apr. 20—New York—FCIB Drug, Chemical & Food Export Club luncheon meeting, Advertising Club, 12:15 p.m.

Apr. 20—Toronto, Can.—Buffalo World Trade Assn. meeting, CNE Grounds, Automotive Bldg.

Apr. 25—Saddle Brook, N.J.—DISC Seminar, Holiday Inn, Route 80, 9:30 a.m.-noon. Sponsors: Bergen County Chamber of Commerce, New Jersey State Chamber of Commerce, New York Field Office.

Apr. 28—Cincinnati—Seventh Ohio Valley International Trade Conf., Imperial House, 1:30 p.m. Sponsors: World Trade Club, Dayton World Trade Comm., Kentuckiana World Commerce Coun., REEC, Field Office.

May 11-12—Washington, D.C.—Conference on pollution control in the marine industries, Shoreham Hotel. Sponsor: International Assn. for Pollution Control.

Worldwide Business Services

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230, or from any Commerce Field Office.

Licensing, Investment Abroad

KOREA—Well-known exporter, importer and manufacturer **seeks U.S. investor/partner with promising, interesting product** to provide marketing service, technical assistance and capital. Forty-five percent share in equity and management proposed. Established in 1954, firm manufactures wigs, sweaters, toys and eyelashes. Has direct control over affiliates producing cellophane paper, cigarette filter rods, paper products, and electrical components. Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D. C. 20230. WTD. P-72184

1500—BELGIUM—Established, medium-sized **construction firm and prefabricator** seeks joint venture to increase capital and diversify product lines. Currently produces walls, floor, chimneys, models and panels for houses. Located near Brussels with room for expansion. Victor Bernard, Deputy Consul General, Consulate General of Belgium, Industrial Sec., 50 Rockefeller Plaza, Suite 1104, New York, N.Y. 10020. P-72149

2000—SWITZERLAND—Leading manufacturer of snack foods seeks licensing and manufacturing rights. Items of interest include **snacks served with drinks (except foods containing chocolate and sugar); novel alcoholic and non-alcoholic drinks; cocktail mixes; and appetizers.** Company employs 270; reported annual sales in 1971 of $10 million. Paul Zweifel, President, Zweifel & Co., Regensdorferstrasse 20, 8049 Zurich, Switzerland. WTD. P-72182

2086—VENEZUELA—Group of investors, headed by prominent Caracas businessman, seeks joint venture with firm in **soft drink bottling field.** Antonio Angel Hernandez Estrada, Reducto a Glorieta No. 67–Altos Apartado Postal 6333, Caracas. P-72181

2591 — GERMANY — Manufacturer of **venetian blinds with non-flammable laminated slats, and accessories and slats for sunblinds** seeks U.S. licensors. Established 1920 and employs 20. VERTISO GmbH, 44 Muehlenstr., 404 Neuss, Germany. WTD. P-72170

2819—INDIA—U.S. technical collaboration on project to manufacture **leather tanning and finishing chemicals.** Wants licenses, know-how to produce basic **chromic sulfate, sodium bichromate, sodium sulfate; other chromium and sulfate compounds.** Would import required machinery. Approximately 40% of proposed production to be exported; balance sold to Indian tanning industry. Indian group presently manufactures and distributes finished leather, leather goods and footwear. K. K. Mohiadeen, Managing Director, Tamil Nadu Chromates & Chemicals Ltd., 2G, Nungambakkam High Rd., Madras 34. WTD. P-72140

2819—YUGOSLAVIA—Licenses to manufacture **antimony and antimony dioxide** in Macedonia metal plant. Interested in applications to the chemical and metals industries. Trajan Ivanovski, General Director, Stopanska Banka, Skopje. P-72180

2821, 2851, 2951 — SWITZERLAND — Manufacturer and distributor of German humidity control construction products and chemicals seeks to represent or manufacture under license **waterproofing compounds for the building trade. Also, waterproofing concrete additives and paving mixtures and humidity control plastic products resins for the building trade.** Established 1949; employs 25. F. J. Aschwanden, F. J. Aschwanden A. G., P.O. Box 114, 3250 Lyss. WTD. P-72177

2821 — YUGOSLAVIA — Manufacture **polyester, possibly polyacrilics** through joint venture. Seeks technical know-how, capital. Wants to expand production of synthetic fibers. Trajan Gavrilski, Assistant General Manager, "OHIS" Organic Chemical Industry Skopje, P.O.B. 431, Skopje. P-72183

2841—YUGOSLAVIA — Manufacturing rights for **bio-degradable products to include pesticides and insecticides.** Growing domestic market. Company presently produces conventional commercial and industrial detergents. Trajan Gavrilski, Assistant General Manager, "OHIS" Organic Chemical Industry Skopje, P.O.B. 431, Skopje. P-72179.

2842—SWITZERLAND—Small chemical company seeks licenses. Wants to manufacture (1) **chemicals for the construction industry** such as synthetic plasters and coatings for walls and floors, products to facilitate the hardening of concrete and similar additives; impregnating and sealing chemicals; (2) **cleaning preparations** with combined rust removing and lubricating effect, products for cleaning automotive exgines and parts, corrosion resistant specialties; and (3) **chemicals for the printing industry** including varnishes, drying preparations and cleaners. Later produce inks, electrostatic copying specialties and coloring agents. Firm occupies new and well-equipped facilities; has distribution network. W. von Siebenthal, Director, AGOL Chemie AG, Freiburgstrasse 618, 3172 Niederwangen, Switzerland. WTD. P-72153

2851—UNITED KINGDOM—Licenses to manufacture **polyurethane and epoxy based seamless floor coatings for industrial purposes.** Coatings would be self leveling or trowel applied. Firm presently produces laminated, molded, reinforced, decorative plastics. It employs 2,000 and markets in Europe, Africa, Asia and Australia. Formica Ltd., P.O. Box 2, De La Rue House, 84/86 Regent St., London, W1R 6AB, England. WTD. P-72169.

2911—YUGOSLAVIA — U.S. participation sought in proposed new **petrochemical facility.** Estimated cost between $60-$70 million. Construction of plant contingent on completion of southern pipeline from Salonika, Greece. Trajan Gavrilski, Assistant General Manager, "OHIS" Organic Chemical Industry Skopje, P.O. Box 431, Skopje. P-72182

3069 — YUGOSLAVIA — Establish new plant to produce **conveyor belts, small machine and motor belts.** Seeks technical know-how, machinery, engineering and capital. Anticipate growing market in Eastern Europe. Company currently manufactures shoes, rubber adhesives. Blagoja Jankovski, Acting General Director, GAZELA Shoe and Rubber Products Industry, Skopje. P-72181

3253—JAMAICA — Businessman wants technical know-how and machinery to establish a company **to manufacture ceramic tiles.** Production of a full line of bathroom tiles contemplated. A recent government study indicates that all required raw materials exist in Jamaica. A feasibility study would be needed to confirm the economic viability of the project. John Hanna, P.O. Box 171, Kingston 8, Jamaica. P-72164

3323—GREECE — Licensing agreement or joint venture for a **foundry to produce shell castings, cast iron castings and modular cast iron castings.** Monthly production of 120 metric tons with a 750 kg. induction furnace planned. The Hellenic Industrial Development Bank (ETVA) will reportedly provide the $350,000 cost of this venture. "VIOMESP LTD.," 33B-35B Papastratou St., Piraeus, Greece. WTD. P-72152

3400 — BELGIUM — Well-established, moderate-sized **metal fabricator and shipbuilder** seeks association to export product line and develop new products. Produces structural steel items for utilities and chemical plants, heating equipment and other metalworking items in addition to building and repairing river

vessels and dredging equipment. Strategically located on canal near German and Dutch borders. Victor Bernard, Deputy Consul General, Consulate General of Belgium, Industrial Sec., 50 Rockefeller Plaza, Suite 1104, New York, N.Y. 10020. P-72150

3444—UNITED KINGDOM—Seeks licenses for **metal products for construction industry**. Products of particular interest are **truss clips, framing anchors and bar stamps**. Presently manufactures metal fittings for the building industry. R. Daffern, Marketing Mgr., Automatic Pressings Ltd., Haybrook, Halesfield, Telford, Shropshire, England. WTD. P-72166

3541 — SWITZERLAND — Licenses to manufacture machinery for production of semi-finished metal items. Specific items sought are **wire milling machines, semi-finishing mills, band cutting or milling machines, strip separating and winding machines**. Firms is highly specialized manufacturer of casting equipment and machine tools. Recently opened a new, highly automatic machine tool plant. Entirely self-financed company and maintains manufacturing, R&D and application engineering department. Alfred Wertli, Pres., Alfred Wertli AG, Poststrasse 15, 8506 Winterhur, Switzerland. WTD. P-72172

3548—UNITED KINGDOM—Licenses to manufacture **steel mill machinery and handling equipment, coil handling equipment and color coating apparatus for metals**. Company produces continuous casting machines for non-ferrous metals and automatic stackers for ingots. Employs 200. Established 1879. A. G. Morrison, Man. Dir., Morward Mfg. Co., Ltd., Morward Works, Gorseinon Rd., Penllergaer, Gorseinon, Swansea, Glamorgan, South Wales. WTD. P-72154

3559--UNITED KINGDOM—Licenses to manufacture **equipment for the disposal of solid and liquid industrial waste**. Firm experienced in waste disposal field. A. F. Smith, Chairman, Waste Clearance Ltd., Mort Lane, Tyldesley, Manchester, M29 8 PH, England. WTD. P-72178

3559—UNITED KINGDOM—Licenses to manufacture **air pollution equipment**, particularly oil mist extraction units and fume scrubbers. Also interested in production of dust collectors, environmental control systems and ventilation units. Current product line includes ventilation units and fans, environmental test chambers and dust collectors. D.R.G. Pyke, Sales Manager, Industrial Fan & Heater Co. Ltd., Evelyn Rd., Birmingham, Warwickshire, B11 3JR, England. WTD. P-72159

3591—BELGIUM—Established Brussels **sheet metal and welding** firm is seeking collaboration with an American firm for the establishment of a new plant to expand and diversify its activities. Victor Bernard, Deputy Consul General, Consulate General of Belgium, Industrial Sec., 50 Rockefeller Plaza, Suite 1104, New York, N.Y. 10020. P-72165

3622—FRANCE—Manufacturer of wide range of industrial products including automobile electronic devices seeks manufacturing licenses to produce **industrial electronic equipment, principally for automation, control and teleprocessing devices**. Firm employs 3,500 with 650 in the electronic divisions, and operates six plants. Tecalemit-Gelbon, B. P. 494-94152, 94-Rungis Principal, Attention: D. Debernard, Development Director. WTD. P-72163

3622, 3821—SWITZERLAND — Experienced manufacturer and marketer of electronic controls for machine tools and watch machinery seeks manufacturing licenses for **industrial controls and process instruments for machine tools and high precision machinery**. Alternatively, the firm is willing to represent in Switzerland U.S. manufacturer of these controls and instruments. As a distributor of electronic devices, the firm is also interested in importation of, and representation for, advanced electronic components, switches, contacts and relays; high speed stepping motors for digital motions, and x/y positioning systems. Established in 1946, the firm employs 40 and is reported to have an excellent reputation. G. Manta, Manager, Dumaco AG, Elfenaustr. 3, 2500 Bienne. WTD. P-72136

3622, 3643—UNITED KINGDOM—Established producer of electric and electronic control gear seeks licenses to produce in U.K. **limit switches, precision switches and control gear**. Firm also manufactures terminal blocks, modular switchboards, relays and a wide range of controls and switches. Would consider licenses for any industrial or consumer products in electrical or electronic field. With strong research and development activity and excellent marketing facilities, firm maintains authorized trade representatives in the U.S. William C. Lewis, V. P., British Trade Corp., Suite 329, 4921 Seminary Rd., Alexandria, Va. 22311. P-72176

3630—BELGIUM—Licenses sought by important manufacturer of **gas and electronic stoves, ranges, refrigerators, washing machines and dryers** for production of equipment in same fields. Usines et Fonderies Nestor Martin S.A., c/o J. Chevalier, Secretary General, 52 rue Nestor Martin, 1080 Brussels. WTD. P-72162

3674—UNITED KINGDOM—Established manufacturer of semiconductors proposes licensing or joint venture arrangement to upgrade technology of current **thick film hybrid microcircuit** manufacture. In addition to above microcircuits, company produces germanium and silicon transistors, PCB's and other prepackaged complexes of semiconductor devices. Firm is a subsidiary of a major electronics-electrical company, enjoys broad marketing facilities of parent's 45 companies, had 1971 turnover of approximately $2 million. Newmarket Transistors Ltd., Exning Rd., Newmarket, Suffolk, England. WTD. P-72155

3732—JAPAN—Producer of boats, industrial machines and greenhouses seeks manufacturing license to produce **hovercraft type leisure boats** of following specifications: length, 15 to 17 feet with crew of two to three; hull of aluminum or FRP; speed, about 30 knots, and engine either reciprocating or gas turbine. Tomita Iron Works Co., Ltd., 553, 3-chome, Hoshikawacho, Hodogaya-ku, Yokohama. WTD. P-72156

7011—TUNISIA—Travel agency and hotel operator seeking joint venture for the **construction of four hotels** in Southern Tunisia. Company expecting to establish a charter airline in the near future. Ridha Jammali, Pres., SITATOUR, 29 Ave. Bourguiba, Tunis. P-72168

Licensing In U.S.

For additional information on opportunities to manufacture foreign firms products in the U.S., write Commerce's Office of International Investment, BIC-874, Bureau of International Commerce, Department of Commerce, Washington, D.C. 20230, telephone Area Code 202-967-2248, referring to the appropriate FILE number assigned each opportunity listed below.

AUSTRALIA—An Australian orchardist has developed an **outdoor heating system** that he claims is thoroughly successful in preventing frost damage. The provisionally patened invention is offered for U.S. manufacture under license. **File 2164**

FINLAND—A unique **safety brake for lifelines for people working in high or difficult places** is offered for U.S. manufacturing under license. The device is an oil-pressurized wire brake with a free working range of 60 feet. **File 2169**

GERMANY—A German firm making equipment for production of **tubing and ducts for air-conditioning units and blower systems** offers a licensing arrangement for the following types of machinery. A duct fabrication system and a machine for the manufacturing of spirally wound steel tubing for a wide range of tube dimensions. **File 2170**

GERMANY—A German company that has patented its harrows in several countries including the U.S. is interested in licensing an American manufacturer to make their **reciprocating cultivating harrows**. The harrows contain two rugged beams fitted with long triangular prongs which move reciprocatingly at high speed (540 r.p.m.) driven by a power-take-off of the tractor. **File 2171**

SWITZERLAND—A patent development and licensing organization in Switzerland offers for U.S. license manufacturing an **automotive warning device which indicates sudden stops or breakdown on the highway**. A bright band of lights mounted on the rear of a car warns at a long distance without being mistaken for braking, turning or rear lights. **File 2174**

SWITZERLAND — Manufacturer offers **electronic anti-aircraft aiming error measuring unit** to U.S. licensees. Several governments reportedly have expressed an interest in the product. **File 1969-R**

UNITED KINGDOM—Folding plastic shelter for use as garage, greenhouse, sun room or workshop. Attaches to side of house. U.S. patents. Representative of well known English firm available in U.S. for discussion. **File 2165**

UNITED KINGDOM—Light sensitive automatic control switch offered for license by English firm. Simple, adaptable as counter, warning mechanism, detector and activator of any type of mechanism. Can be battery operated. Company representative available in U.S. for discussion. **File 2166**

UNITED KINGDOM—English manufacturer offers U.S. licenses for an **integrated line of electrostatic photocopiers**. High speed, adaptable to various paper sizes. Desktop size. Company representative available for discussion in U.S. **File 2168**

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Business Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-924, Washington, D.C. 20230.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Fruit, tree, nut, vegetable farms

01220—LIBYA—Apples. Ben Yunes (importer, dist., agent), Suk Thalat, P.O. Box 2826, Tripoli. WTD in prep.

Canning, preserving foods

20341—ITALY—Best-quality California prunes preferably in bulk (100 lb. bag) but also in boxes (about 25 lbs. ea.) or packaged for consumption (0.5 or 1.00 lb.). Ravignani F.lli, fu Menotti, S.n.c. (importer dist., agent), Via della Pineta Sacchetti 51, 00167 Rome. WTD 5/71.

Grain mill products

20410—GERMANY—Flour, other grain mill products. Direct purchase & agency, Fritz Jungnickel KG. (importer, dist.), 91 Josefastrasse or Postfach 157, 404 Neuss/Rh. WTD 3/72.

20420—GERMANY—Prepared feeds for animals, fowls. Direct purchase & agency. Fritz Jungnickel KG. (importer, dist.), 91 Josefstrasse or Postfach 157, 404 Neuss/Rh. WTD 3/72.

20430 — GERMANY — Cereal preparations. Direct purchase & agency. Fritz Jungnickel KG. (importer, dist.), 91 Josefstrasse or Postfach 157, 404 Neuss/Rh. WTD 3/72.

Confectionery

20710—JAMAICA—Candy bars, nougats, penny items, marshmallows, chocolates. A.V. Delfosse & Sons (importer, dist., mfr.), 116 Orange St., Kingston. WTD 8/71.

Textile Mill products

• **22000 — NEW ZEALAND** — Various textile products for hospital use are requested including 156,300 yds. sheeting, 90,750 yds. swansdown, 64,500 yds. flannelette, 55,400 yds. calico and 49,350 yds. of towelling. Submit to Auckland Hospital Board Supply Officer, P.O. Box 5546, Wellesley St., E. Auckland 1, New Zealand, before 12 noon, May 12. Samples required must be submitted by April 21. Copies of tender and specifications available from Office of Textiles, DIB 300, U. S. Department of Commerce, Washington, D. C., 20230, ★ 202-967-5153.

Broad woven fabric mills, cotton

22110—LIBYA—American khaki cotton twill for military uniforms. Requests samples, prices, terms for various weights, finishes appropriate for uniforms. Initial order estimated 400,000 yds. Direct purchase & agency. Correspondence requested in English & Arabic. Khalifa Bukhzam Org. (importer, dist., agent), P.O. Box 159, Benghazi. WTD 2/72.

22114—FRANCE—Towels, bath towels. Ste saint-leon-del-latour (dist. agent), Allée du Château Beaumettes, 06-Villeneuve-Loubet. WTD in prep.

22117 — SURINAM — General line of plain, printed cotton fabrics and cotton blend fabrics suitable for women's, children's clothing. Time Store (importer, retailer), Zwartenhovenbrugstraat 162-166, Paramaribo. WTD 3/72.

22118—FRANCE—Plain, printed cotton sheets. Ste saint-leon-de-latour (dist., agent), Allée du Château Beaumettes, 06-Villenauve-Loubet. WTD in prep.

Broad woven fabric mills, manmade fiber, silk

22215—SURINAM—Rayon and rayon mixture fabrics suitable for women's, children's clothing. Time Store (importer, retailer), Zwartenhovenbrugstraat 162-166, Paramaribo. WTD 3/72.

22217 — SURINAM — Silk, polyester, acrylic, other manmade fiber fabrics suitable for women's, children's clothing. Time Store (importer, retailer), Zwartenhovenbrugstraat 162-166, Paramaribo. WTD 3/72.

Apparel, accessories

23872—ZAMBIA—Belts for mens trousers with plain and fancy belting, buckles in imitation leather or plastic. Requests catalogs, price lists, landed costs to Kitwe. Esquire Mfr. Ltd., Attn: J.A. Martin, Mgn. Dir. (mfr.), P.O. Box 1955, Kitwe. WTD in prep.

Fabricated textile products

23920—FRANCE—Damask linen tablecloths, napkins (white or color). Ste saint-leon-de-latour (dist., agent), Allée du Château Beaumettes, 06-Villeneuve-Loubet. WTD in prep.

Sawmills, planning mills

24290 — NETHERLANDS — Woodwool cement sheets in bulk. Exclusive imports for Netherlands, Belgium. Inverbo N.V., Attn: Mr. F. de Vries, Off. Mgr. (importer, dist.), Nijverheidsweg 10, Putten. WTD 3/72.

Millwork, structural wood products

24332—NETHERLANDS—Wooden wall linings. Exclusive representations for Netherlands. Benelux. Inverbo N.V., Attn: Mr. F. de Vries, Off. Mgr. (importer, dist.), Nijverheidsweg 10, Putten. WTD 3/72.

Wooden containers

24450—SPAIN—Virginia oak-wood casks for aging liquors, other spirits. Cooperativa Canaria de Fabricantes de Aguardientes y Licores ("COCAL") (mfr.), Apartado Postal #741, Las Palmas de Gran Canaria. WTD 3/72.

Wood products

24911—CYPRUS—Creosoted wood poles. Quote c.i.f. Cyprus. Direct purchase & agency. Phanos A. Papageorgis (dist., agent, retailer), P.O. Box 229, Famagusta. WTD 3/72.

Household furniture

25190—JAMAICA—Household furniture. Ultramodern, plastic living, dining, bedroom pieces. Brochures, c.i.f. quotations requested. Robinson Marketing Corp. Ltd. (importer, dist., retailer), 10 Trafalgar Rd., Kingston 5. WTD in prep.

Office furniture

25223—JAMAICA—Bank teller drawers with fittings operating between teller and customer to exchange money, receipts.

Brochures, price quotations requested. Bicknell's Industrial Service Ltd. (industrial service and repairs), 27 Liguanea Ave., Kingston 6. WTD in prep.

25223—JAMAICA—Cabinet and cases: computer associated equipment, e.g., tape filing cabinets, disc storage, computer printout files, bursters and decollators. Brochures, quotations c.i.f. Kingston. Exclusive sales representation. Bryden & Evelyn Ltd., Attn: R. C. Arscott (importer, dist., agent), 54-56 Church St., Kingston. WTD in prep.

Furniture, fixtures

25912 — GERMANY — Venetian blinds with nonflammable laminated slats and accessories, slats for sunblinds. VERTISO GmbH (mfr.), 44 Muehlenstr., 404 Neuss. WTD 8/71.

Paper mills, products

26218—CYPRUS — Sulfite wrapping paper for citrus. Quote c.i.f. Cyprus. Direct purchase & agency. Phanos A. Papageorgis (dist., agent, retailer), P.O. Box 229, Famagusta. WTD 3/72.

Converted paper, paperboard products

26431—GERMANY — Imprinted paper, plastic shopping bags. Direct purchase & agency. Junfermann Verlag und Druckerei, Attn: Dr. Martini Jr. (Mfr., printer/publisher), 479 Paderborn, P.O. Box 610. WTD 3/72.

26472—SWITZERLAND—Cocktail paper napkins, 10″ x 10″ plain, quarter fold, assorted designs. Abegglen-Pfister AG (importer, dist.), Hirschmattstr. 42, P.O. Box 1099, 6002 Luzern. WTD in prep.

Manifold business forms

27611—GERMANY — Continuous business forms for optical computer reading. Direct purchase & agency. Junfermann Verlag und Druckerei, Attn: Dr. Martini, Jr. (Mfr., printer/publisher), 479 Paderborn, P.O. Box 610. WTD 3/72.

Industrial chemicals

28120—PHILIPPINES — Caustic Soda: solid, flakes. Hi-Q Commercial, Inc., Attn: Johnny Chua, Asst. Mgr. (importer, dist., retailer), P.O. Box 3631, Manila. WTD in prep.

28122 — PHILIPPINES — Soda ash (sodium carbonate). Engineering Equipment, Inc., Attn: Jose V. Gamatero (importer, dist.), 391 J. Rizal St., Mandaluyong, Rizal. WTD 12/71.

28182—THAILAND — Toothpaste grade raw materials, such as sodium n-lauroyl sarcosinate. Lion Dentifrice (Thailand) Co., Ltd. (importer, dist., mfr.), 1066 Wad Dock Mai, Sadhupradist Rd., Bangkok 12. WTD in prep.

28184—FRANCE — Trace elements for animal feed; aminoacids; synthetic urea. Perrotte Poulard & Cie (importer, mfr.), 5 rue de l'Entrepôt, 76–Dieppe. WTD in prep.

28190—PHILIPPINES—Borax: powder or granular; sodium sulfate anhydrous. Hi-Q Commercial, Inc., Attn: Johnny Chua, Asst. Mgr. (importer, dist., retailer), P.O. Box 3631, Manila. WTD in prep.

28190—PHILIPPINES — Industrial inorganic chemicals such as Afranil-o extra or equal, barium chloride, Busan 881 or equal, Butrol 26 or equal, caustic soda, hydrogen peroxide, Ionad A-550 or equal, Ionad C-240 or equal, KC FLOC W-180 or equal, KC FLOC W-60 or equal, Lutensol or equal, magnesium sulphate, NOPCO DE 162 or equal, NOPCO DF 160 or equal, NOPCO DE 180 or equal, NOPCO KFS or equal, sodium hydrosulphide, sodium silicate (solid or liquid), sodium sulfate, sodium sulfite, sodium tripolyphosphate, sulphur dioxide. Engineering Equipment, Inc., Attn: Jose V. Gamatero (importer, dist.), 391 J. Rizal St., Mandaluyong, Rizal. WTD 12/71.

Drugs

28332—ZAMBIA—Any type of ready made bulk medical supplies. Papco will do complete packing, advertising, marketing throughout Zambia for all products. Papco Industries Ltd., Attn: K. M. Vyas (importer, dist., mfr.), P.O. Box 2910, Lusaka. WTD in prep.

Paints, varnishes, lacquers, enamels

28511—GERMANY—Paints, rust proof. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

28516—GERMANY — Varnishes, rust proof. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

Agricultural chemicals

28710—GERMANY—Fertilizers. Direct purchase & agency. Fritz Jungnickel KG. (importer, dist.), 91 Josefstrasse or Postfach 157, 404 Neuss/Rh. WTD 3/72.

28720—GERMANY—Fertilizers, mixing only. Direct purchase & agency. Fritz Jungnickel KG. (importer, dist.), 91 Josefstrasse or Postfach 157, 404 Neuss/Rh. WTD 3/72.

28790—GERMANY—Agricultural chemicals. Direct purchase & agency. Fritz Jungnickel KG. (importer, dist.), 91 Josefstrasse or Postfach 157, 404 Neuss/Rh. WTD 3/72.

Petroleum refining

29110—JAMAICA—Wax for candles. Specifications: melting point 56-58°c, penetration about 17, oil content maximum 0.5%, fully refined. Quotations c.i.f. Kingston. A.V. Delfosse & Sons (importer, dist., mfr.), 116 Orange St., Kingston. WTD 8/71.

Plastic products

30796 — NETHERLANDS — Acoustical and decorative ceiling materials of cellulosic fibers; plastic wall lining sheets. Exclusive representations for Netherlands or Benelux, countries requested. Inverbo N.V., Attn: Mr. F. de Vries, Off. Mgr. (importer, dist.), Nijverheidsweg 10, Putten. WTD 3/72.

30797—SWITZERLAND — Plastic cocktail spears, other plastics tableware for hotels, motels, restaurants. Abegglen-Pfister AG (importer, dist.), Hirschmattstr. 42, P.O. Box 1099, 6002 Luzern. WTD in prep.

Glass, glassware

32291 — PHILIPPINES — Tablewares: glass. Vogue Industries, Attn: Joseph So, Gen. Mgr. (importer, dist., retailer), 202-204 Echague St., Manila. WTD in prep.

Glass products

32316—JAMAICA — Bullet-proof glass and fittings, standard sizes for bank teller windows. Brochures, price quotations requested. Bicknell's Industrial Service Ltd. (industrial service and repairs), 27 Liguanea Ave., Kingston. WTD in prep.

Abrasive, asbestos, nonmetallic mineral products

32961 — NETHERLANDS — Acoustical and decorative ceiling materials of mineral fiber. Exclusive representations for Netherlands, Benelux countries requested. Inverbo N.V., Attn: Mr. F. de Vries, Off. Mgr (importer, dist.), Nijverheidsweg 10, Putten. WTD 3/72.

Steel mill products

● **33100—BOLIVIA**—9,600 meters, steel tubes of 16″ diameter and accessories. Tender No. CC-165/72, Corporacion Minera de Bolivia (COMIBOL), Casilla (P.O. Box 349), La Paz, Bolivia. Approximate value of this purchase is $U.S. 120,000 according to COMIBOL estimates. Bid deadline is May 4. Copy of above tender is available from Bureau of Domestic Commerce—786, U.S. Department of Commerce, Washington, D.C. 20230 ★202-967-5050.

● **33100—INDIA**—20,650 Kgs. soft iron strips and rods. Tender No. P/202/49/288/16.2.72/PL,Directorate General, Supplies and Disposals, Jeevantara Bldg., Parliament St., New Delhi, India. Bid to be sent to above address no later than 10:00 a.m. May 18. Financing through IBRD Loan No. 615-IN. Copy of tender available from India Supply Mission, 2536 Massachusetts Ave., NW., Washington, D.C. 20008. Tender fee $2.70; receipt must be attached with quotation.

33122—KOREA—High carbon steel wire rods to process into steel wires for use in making springs for furniture, bead wire for tires, etc. Annual requirement—1,000 M/T. c.&f. and/or f.o.b. quotations requested. Yung Chang Kumsok Kongop Co., Ltd. (importer, dist., mfr.), 685-200 Kuro-dong, Yongdungpo-ku, Seoul. WTD in prep.

33123—ETHIOPIA — Electrolytic tin plate bright finish: coating 0.50 lbs. and 0.25 lbs.; sizes: 0.30 x 510 x 765; 0.30 x 710 x 930; 0.30 x 770 x 930. First quality and also W.W. (waste-waste) quality. Electrolytic tin plate: hot dipped and lacquered one side for food canning industry, i.e., beans, meat, tomato paste etc. Ethiopian Industrial & Commercial Sh. Co. (mfr.), P.O. Box 417, Asmara. WTD 3/72.

33123—MOZAMBIQUE — 150,000 sheets of prime electrolytic tinplate, bright finish, SPTE temper 3,0.25 tin coating approx. 3 m/m, tolerance –0/+3, shearing margin nil, Jis G 3303 (1969) of following size: 20½ x 30$\frac{5}{16}$″; (b) 450,000 sheets, idem, of size: 18 $\frac{5}{16}$″ x 28″; and (c) 37,500 sheets, idem, of size: 21¼″ x 28¾″. Delivery dates: ⅓ in August 1972, ⅓ in November 1972, ⅓ in January 1973. Price quotations c.i.f. Nacala port. Sociedade Comercial e Industrial de Caju, S.A.R.L. (SOCAJU) (mfr.), P.O. Box 5–Nacala. WTD in prep.

33127—ETHIOPIA — Cold rolled steel sheets (dull and unoiled) ready for galvanizing: BWG 24x4'x8'; BWG 26x4'x8'; or in coils width 4' upwards. First quality and also off grade. Galvanized iron sheets: BWG 24x4'x8'; BWG 26x 4'x8'; or in coils width 4' upwards. First quality and also off grade. Ethiopian Industrial & Commercial Sh. Co. (mfr.), P.O. Box 417, Asmara. WTD 3/72.

33167—ITALY—Cold rolled dynamo steel strips with core loss of max. 2.6 wv/kg. measured at 10,000 gauss and 50 cycles, according to DW 46,400, insulated with paper on one side, in coils 0508 mm. Simera, S.r.l. (importer), Via dei Fiori, 37, 20095 Cusano Milanino (Milano). WTD in prep.

Rolling, drawing, extruding of nonferrous metals

33571—THAILAND—Painted aluminium wire net for insect screening. .011" gauge. 18x14 mesh, in rolls of 36" width x100 ft. lengths, minimum 300 rolls per shipment. Requests c.i.f. Bangkok prices, delivery terms. Alcan Thai Co. Ltd. (dist., mfr.), 10th Floor, Dusit Thani Office Bldg., 1-3 Rama IV Rd., Bangkok. WTD 3/72.

Cutlery, hand tools, general hardware

34231—GERMANY — Tools, mechanics'. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

34250—GERMANY—Saw blades, power; hand saws; hand tools. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

34290—PHILIPPINES—Hardware of all types. Vogue Industries, Attn: Joseph So, Gen. Mgr. (importer, dist., retailer), 202-204 Echague St., Manila. WTD in prep.

34291—JAMAICA—Lobster fishing gear: One small complete system to outfit one vessel. Literature, quotations requested. E. Lai Corp., Attn: Charles Young (holding company), 35 Trafalgar Rd., Kingston 10. WTD 5/71.

34294—ICELAND—Builders' hardware. Ragnar Gudmundsson (importer, dist.), Laugarnesvegur 36, P.O. Box 231, Reykjavik. WTD 3/72.

Heating apparatus, plumbing fixtures

34320—GERMANY — Sprinklers, lawn. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

34320—SPAIN—Sprinklers, lawn, brass goods. Cia Iberoamericana de Riegos, S.A. (importer, dist.), Ardemáns, 48, Madrid (28). WTD 2/72.

34336—SPAIN — Heating systems for household use. Interested only in newest and technologically most advanced heating systems for homes. Exclusive distribution rights for Europe. Sol-Thermic, S.A. (importer, dist.), Rodríguez San Pedro, 2, Madrid (15). WTD 2/72.

Fabricated structural metal products

34421—JAMAICA—Fire safety doors for houses. Price quotations, brochures requested. E. Lai Corp., Attn: Charles Young (construction, holding company), 35 Trafalgar Rd., Kingston 10. WTD 5/71.

● 34439—ARGENTINA — Reactors for production of biodegradable di-bio-benzene (30,000 metric tons per yr. capacity); reactors for production of non-biodegradable di-bio-benzene (15,000 metric tons per yr. capacity); reactors for isopropylbenzene (29,000 metric tons per yr. capacity). High pressure and high volume chemical process pumps. Yacimientos Petroliferos Fiscales (YPF), Gerencia de Petroquimica (mfg., state petroleum co), Viamonte 783–3° Piso, Buenos Aires.

Screw machine products

34521—GERMANY—Screw drivers. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

Metal stampings

34610—PHILIPPINES — Kitchenwares: stainless steel. Vogue Industries, Attn: Joseph So, Gen. Mgr. (importer, dist., retailer), 202-204 Echague St., Manila. WTD in prep.

Fabricated metal products

34942 — SWITZERLAND — Hydraulic, electro-magnetic control valves. Exclusive sales rights for Switzerland. Hydratec AG (importer, dist.), Industriestrasse, 8603 Hegnau. WTD 3/72.

Farm machinery

● 35200—CHAD—Farm machinery and vehicles, workshop equipment, maintenance equipment, for technicians training center. Estimated value $120,000. Specs available from: Embassy of Chad, 1132 New Hampshire Ave., NW., Washington, D. C. 20037. Bid deadline is May 23.

35227—GERMANY—Lawn edgers, lawn mowers, hand and power. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

Construction, mining, materials handling machinery, equipment

● 35300 — AFGHANISTAN — Public works ministry invites tenders for highway maintenance equipment including earthmoving, compaction, snowclearing, asphalt paving, and related equipment. Bid documents available from: The President, Rd. Construction and Maintenance Dept., RGA Ministry of Public Works, Nadir Shah Meena, P.O. Box 577, Kabul, Afghanistan.

Metalworking machinery

35410—TURKEY — One automatic pipe and threading machine to be used for threading pipes having diameters of ½"-4". Thread standards: DIN 150, pipe lengths: 3-6.5 meters; spindle speeds: 750-1500 r.p.m.; output: 360-1500 pipes per hr. Machinery quoted should necessitate minimum labor force. Technical drawings, catalogs, should be submitted with offers. Yucel Boru ve Profil Endustri A.S. (mfr.), TEK, Tuzla Trafo Istasyonu Yaninda, Cayirova, Gebze. WTD 3/72.

35419—SPAIN—One rotatable table for use with Innocenti Mm-3033 boring-milling machine: dimensions, 3500 x 4000 mm; longitudinal displacement, 2500 mm; loading capacity, 70 metric tons. La Maquinista Terrestre y Maritima, S.A. (mfr.), Avda. Fernando Junoy, 2-64, San Andres, Barcelona (16). WTD 12/71.

The following machinery is also available from this firm: Two vertical boring milling machines, fixed column, with grinding disk (two with reading lenses); one vertical tracing boring milling machine with movable column, boring spindle, milling sleeve and grinding disk; one vertical knee-type boring milling machine for small pieces with universal headstock (35411): two turret drilling machines, semiautomatic cycle, with six-position revolving tool holder; four radial drilling machines (two 80 mm, reach of drill, 2500 mm; two 50 mm, reach of drill 1500 mm); one drilling machine with automatic positioning; one portable drilling machine for depth drilling, (35412): one universal tool honing machine; one automatic honing machine for drills and cutting plates; one honing machine for broaches of up to 100 mm. One electrochemical honing machine for hard metal tools utilizing cold honing process with deburring and finishing in one operation; one universal cylindrical grinding machine for exterior work; one universal cylindrical grinding machine for large exteriors; one lapping machine for interior work, (35414): one vertical lathe with two transverse carriages and one vertical carriage; one boring lathe for exterior, interior machining of engine cylinders with duplicating device for boring, (35415): two horizontal milling machines with table supported directly by bench; two universal milling machines, table dimensions, 1150 mm. by 325 mm.; one longitudinal milling machine for interior machining of motor cases for small electric traction motors, (35416): one multi-spindle machine tool for boring, milling, drilling, grinding, reaming, threading and slotting of separate faces of a piece in short or partially repetitive series with semi-automatic control by means of perforated card; one multi-spindle machine tool for same use and specs. as machine tool described above but able to change tools automatically.

35423 — SINGAPORE — Machines for making top stops and bottom stops of zip fasteners sizes No. 3 and 5. Kwee Hian Dji, Dir., Perfect Industries (S) Pte. Ltd. (mfr.), 96B-106B, Boon Keng Rd., Block 5, Singapore 12. WTD in prep.

35441—GERMANY — Tools, special design. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

35451 — SWITZERLAND — Advanced machine tool accessories, new invented items. J. H. Brigel (importer, dist.), Seestrasse 85, 8712 Staefa. WTD 7/71.

35452 — SWITZERLAND — Equipment for dimensional measuring, dimensional gauges, comparators, adjustable size limit gauges, gauge blocks, pneumatic gauges, dividers, calipers, layout machines, inspection, checking equipment. Exclusive sales rights for Switzerland. J. H. Brigel (importer, dist.), Seestrasse 85, 8712 Staefa. WTD 7/71.

Special industry machinery

● 35500—ALGERIA — Setting up of furniture factory, including providing and assembling equipment, start up, professional training and technical assistance. Plant to be known as the "Oued-Rhiou" project to be located at Mostaganem. No tender number, specified; bid deadline June 9. Societe Nationale des Industries du Bois (SNIB) 1, rue Aristide Briand, Algiers (Hussein Dey). A copy of the bid dossier (in French) is available on a short term loan basis to firms domiciled in the U.S. from General Industries Division, BDC-772, U.S. Department of Commerce, Washington, D.C., 20230. ★202-967-5593.

● **35500—EGYPT**—Beer Bottling Plant. —capacity 20,000 bottles per hour. Bid deadline May 16. For specifications contact: The General Organization for Industrialization; 6, Khalel Agha St., Garden City, Cairo, ARE.

● **35500—INDIA** — Low temperature package plants for air separation, towers and reactors, heat exchangers, boilers, tanks, pumps, compressors, and electrical equipment for expansion of its fertilizer plant at Gorakhpur in Uttar Pradesh. Tender No. not specified; bid deadline April 30. Group Manager, Project Coordination (Gorakhpur Expansion), Fertilizer Corp. of India Ltd. (FCI), Planning & Development Division, P.O. Sindri-Dist. Dhanbad, Bihar. FCI states that suppliers of machinery and equipment should register their names with them and indicate the item or items for which suppliers would like to receive inquiries for submission of bids. Copies of the 36 items of machinery and equipment required for the project are available on a short term loan basis to firms domiciled in the U.S. from General Industries Division, BDC-772, U.S. Department of Commerce, Washington, D. C., 20230 ★202-967-5593.

● **35500 — LEBANON** — Equipment installed and operational: two drawing machines, Pittsburgh type, equipped with 27 pairs of rollers, one machine to produce sheet glass of 2.75 meter width, other for sheet glass of 2.35 meter width, current 220v, three-phase, and 50 cycles. Offers should be mailed to Head Mgr., Dr. Salim S. Hajal, Societe Libainaise Pour L'Industrie Des Verres, Porcelaines (Soliver), P.O. Box 4520, Beirut.

● **35500 — POLAND** — Equipment and know-how required to produce Apple Pectin.—Contact Polish Assn. of Fruit and Vegetable Industry; Krucza St. 24, Warsaw, Poland.—Urgently seeks contact of U.S. suppliers of machinery and know-how.

35510 — PHILIPPINES — Machinery, equipment (complete set) for manufacture of beer. Edwardson Mfr. Corp., Attn: Antonio K. Paredes-Pres. & Gen. Mgr. (importer, mfr., agent), 682-688 Carriedo, Manila. WTD in prep.

35513—BARBADOS — Equipment for making peanut butter, peanut confectionery. Richard A. Williams & Co., Ltd. (importer, agent, retailer), P.O. Box 434, Bridgetown. WTD in prep.

35513—PHILIPPINES — Candy making machines; All types, for hard, caramel, toffee candies. New Foundation Trading, Inc., Attn: B. H. Lee, Gen. Mgr., (importer, dist., retailer), Rms. 303-305 Yuchengco Bldg., 484 Rosario St., Manila. WTD 10/71.

35540—GERMANY—Imprinted paper or plastic shopping bags producing machines. Junfermann Verlag und Druckerei, Attn: Dr. Martini Jr. (mfr., printer/publisher), 479 Paderborn, P.O. Box 610. WTD 3/72.

35540—ISRAEL—Paper converting machine for toilet paper of tissue and crepe; to produce, cut, roll paper to size of 1.60 meter; production capacity: maximum two tons per day. Machine can be either new, rebuilt or used. Offers/catalogs requested airmail. Kibbutz Amir-Rex (dist., wholesale, mfr.), Doar Na Hagalil Ha'Elion (Upper Galilee). Attn: Mr. Shlomo Halevy.

35540 — SUDAN — Supply of complete machinery for producing newsprint, cardboard, packing material, writing and wrapping paper together with power supplying equipment, and prefabricated building structure. Sharaf Trading Agencies, (importer, mfr., agent), P.O. Box 1701, Khartoum. WTD in prep.

35540—ZAMBIA — Envelope making machine; book binding machine; paper converting machine, all second-hand. Papco Industries Ltd., Attn: K.M. Vyas (mfr.), P.O. Box 2910, Lusaka. WTD in prep.

35595—AUSTRIA—Machinery for coating small electric and electronic components with epoxy resin powder, machinery to coat by electrostatic deposition or by dipping into aerated fluidizing bed. Canada Products Aussenhandelsges.m.b. H., Banernmarkt 24, A-1010 Vienna. WTD 5/70.

35595—JAMAICA—Candle making machines for birthday-size candles, and ¾" diameter by 8" length candles. A. V. Delfosse & Sons (importer, dist., mfr.), 116 Orange St., Kingston. WTD 8/71.

35595—PAKISTAN—Complete plant for manufacture of speakers for transistor radios: size–4" dia; production capacity–1000 Nos/8 hrs; type–square; capacity of speaker–8 ohms–1 watt. Requests catalogs, quotations, C. & F., Karachi. Limton Industries (importer, dist., mfr.), P.O. Box 3610, Karachi–16. WTD in prep.

Special Action

Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

35410—SWITZERLAND — Honing tools and machines, rollers, center sinking and drilling machines for metalworking purposes. Mr. Hugo Scherrer, Sales Mgr. (importer, dist.), Untere Hardegg 2, 4600 Olten WTD in prep.

35595—LIBYA—5 small portable desalinization units. Barie Trading Co. (importer, dist.), P.O. Box 6552, Tripoli. WTD in prep.

36211—AUSTRALIA—Submersible bore hold pump motor: 240 volt 50 cycle, 2800 rpm, suitable for running submersible pumps down bore holes; sizes ½-3 hp single and 3 phase; maximum outside diameter 4½"; quantities required 500 per annum. If full range is not available, other sizes may be considered. Electric motor: 240 volt AC 50 cycle, approx. 1/10 hp and 2800 rpm, ball bearing, capacitor start capacitor run or shaded pole, foot and flange mounted; 1440 rpm could be considered; motor can be supplied in open condition as unit would be integrally mounted in equipment; quantity requirement around 2,000 per annum. Alternator: 240 volt AC 50 cycle self-regulating 3000 rpm suitable for coupling to 4-stroke engines; possibly trickle charging accessory could be required, this being 12 volt D.C.; out put ranges would be as follows: 300, 800, 1000, 1500, 2000, 4000, 5000, and 7500 watts; quotes for above sizes in lots of 100 per size. Annual aggregate requirement around 1,000 units. If all sizes not made, standard range or nearest equivalents might be acceptable; also complete alternator engine sets may be of interest. ONGA Pty. Ltd. Attn: Don Davey (importer, dist., retailer), 689 Malvern Rd., Toorak, Victoria 3142. WTD 2/72.

35595 — PAKISTAN — Equipment for match factory, including spare parts and technicians to supervise installation of equipment, initial operation, training. Interested suppliers contact William Bateman, Bateman Assoc. Trade Center KY, Sampola A 2,4310 Tuusula, Finland. WTD 2/72.

35595—THAILAND — Jewelry making equipment, i.e. ring fitting and necklace. Requests c.i.f. Bangkok prices, catalogs. Malai Clinic (dental clinic), 23 Bamroongmuang Rd., Sikaksaochingchar, Bangkok. WTD 3/72.

35595—ZAMBIA—Paper and plastic plate making plant. Papco Industries Ltd., Attn: K. M. Vyas (mfr.), P.O. Box 2910, Lusaka. WTD in prep.

General industrial machinery

35612—GERMANY—Pumps, hydraulic. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

35612—SPAIN—Underwater pumps, for water wells. C. Hernández & Cía., S.A. (mfr.), Clara del Rey, 8, Madrid (2). WTD 2/72.

35612 — SWITZERLAND — Hydraulic fluid power pumps for construction machinery, industrial application. Exclusive sales rights for Switzerland. Hydratec AG (importer, dist.), Industriestrasse, 8603 Hegnau. WTD 3/72.

35613 — CYPRUS — Submersible water pumps. Quote c.i.f. Cyprus. Direct purchase & agency. Phanos A. Papageorgis (dist., agent, retailer), P.O. Box 229, Famagusta. WTD 3/72.

35613—GERMANY — Pumps, domestic water systems. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

35616 — GERMANY — Spraying equipment, pistols. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

35690—GERMANY—Sprinkler systems. Direct purchase & agency. Lux, Emil (importer, agent, exporter), 10 Industriestrasse, 5678 Wermelskirchen. WTD in prep.

35690 — PHILIPPINES — Fire fighting equipment. National Industrial Gases Corp., Attn: Jose Mari Moraza, Sales Mgr. (dist., mfr., retailer), 100 M. Concepcion St., Buting, Pasig, Rizal. WTD 8/71.

35690—SPAIN—Sprinkler systems, automatic. Cía. Iberoamericana de Riegos, S.A. (importer, dist.), Ardemáns, 48, Madrid (28). WTD 2/72.

Office, computing, accounting machines

● **35700—GREECE**—Supply of 10 card punch verifying machines with alphanumerical keyboard. Tender No. 137/72, bid deadline May 23. Ministry of National Economy, Direction General of Procurements, Direction 4th of State Purchases, 20 Canningos St., Athens. Loan copy of the terms and specifications available from the Business, Photographic and Scientific Equipment Division, BDC-708, Room 1128, U.S. Dept. of Commerce, Washington, D.C., 20230. ★(202-967-2939).

35720—PHILIPPINES—Typewriters, re-

built. Stasa Inc., Attn: Delfin M. San Jose, Gen. Mgr. (importer, dist., agent), 3972 Airport Rd. Extension cor. Unida St., Baclaran, Paranaque, Rizal. WTD in prep.

35741 — PHILIPPINES — Adding machines, rebuilt. Stasa Inc., Attn: Delfin M. San Jose, Gen. Mgr. (importer, dist., agent), 3972 Airport Rd. Extension cor. Unida St., Baclaran, Paranaque, Rizal. WTD in prep.

Service industry machinery

35860—NETHERLANDS — Automotive service station equipment. Exclusive representation for Benelux. Lebon & Visser N.V.; Attn: G. Zeldenthuis (importer), 5b Kostverlorenweg, Soest. WTD 9/71.

35892—SAUDI ARABIA—Water desalination equipment 30,000 gls. per day capacity. Ahmad Hamad ALGOSAIBI & Bros. (dist., agent, retailer), P.O. Box 106, Alkhobar. WTD 1/71.

Machinery

35992—SPAIN—Amusement park equipment. Requests catalogs, price lists. Miber, S. L. (importer, dist.), Jorge Juan, 139, Madrid (28). WTD 3/72.

Electric transmission, distribution

● 36100—INDIA—Supply Control and Relay Boards, Tender No. IDA/HSEB/8. Bid deadline May 12. Specifications available for $13.70 (U.S.) from the Chief Engineer (P&C) Design Directorate, Haryana State Electricity Board, SCF-6, Sector 17E, Chandigarh, India. IDA Credit No. 242IN. Cost of documents may be remitted in the form of demand draft drawn on any Indian bank in favor of Accounts Officer, Haryana State Electricity Board, Chandigarh, India.

36121—GREECE—Fluorescent lamp ballasts. Requests c.i.f.-Piraeus price quotations. Nikitas C. Deimezis (importer, agent, retailer), 73–A Eolou St., Athens 111. WTD 3/72.

Electrical industrial apparatus

36211 — AUSTRALIA — Electric motor 240 volt A.C. 50-cycle, approx. 1/10 hp. and 2,800 r.p.m., ball bearing, capacitor start capacitor run or shaded pole, foot and flange mounted. 1,440 r.p.m. could be considered. Motor can be supplied in open condition as unit would be integrally mounted in equipment. Quantity requirement around 2,000 per annum.

Alternator 240 volt a.c. 50-cycle self-regulating 3,000 r.p.m. suitable for coupling to 4-stroke engines. Possibly trickle charging accessory could be required, this being 12 volt D.C. Output ranges would be as follows: 300, 800, 1000, 1500, 2000, 4000, 5000, and 7500 watts. Quotes for above sizes in lots of 100 per size. Annual aggregate requirement around 1,000 units. (If all sizes not made, standard range or nearest equivalents might be acceptable; also complete alternator engine sets may be of interest.) ONGA Pty. Ltd., Attn: Don Davey (importer, dist., retailer), 689 Malvern Rd., Toorak, Victoria 3142. WTD 2/72.

36211 — SWITZERLAND — Electric DC fractional horsepower motors, 6, 12 or 24 volt, for hydraulic systems. Exclusive sales rights for Switzerland. Hydratec AG (importer, dist.), Industriestrasse, 8603 Hegnau. WTD 3/72.

36230—TURKEY—Two sets of induction welding machinery: one set for welding pipes with outer diameters ranging between 16-80 mm. and strip thickness of 1-4.5 mm. to produce welded mild steel structural shapes; one set to weld pipes having outer diameters ranging from 10-38 mm. and strip thickness of 0.8-1.5 mm. Machinery quoted should necessitate minimum labor force. Technical drawings, catalogs should be submitted with offers. Yucel Boru ve Profil Endustri A. S. (mfr.), T.E.K., Tuzla Trafo Istasyonu Yaninda, Cayirova, Gebze. WTD 3/72.

Special Action

Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

30113—JAMAICA — Airplane tires, used, size 56 x 16. Price quotations for various grades c.i.f. Kingston, 100 tire lots. Sugar Mfg. Assoc., Attn: Tom Chinloy (dist.), Sugar Research Dept., Mandeville P.O., Manchester. WTD in prep.

33414—KOREA — Purchase of Zinc dust or zinc skimming ash, up 50% or up 70% which will be most desirable. Monthly requirement estimated 50 to 100 M/T on constant basis. c.&f. or f.o.b. Pusan or Inchon quotations requested with 50 grams of sample. Shin Kum San Chemical Industrial Co., Ltd., Attn: Leo Hwang (importer, dist., mfr.), C.P.O. Box 650, Seoul. WTD in prep.

33578—AUSTRALIA—Precious metal (e.g. platinum-rhodium) thermocouples for higher temperatures. Pyrotenax Australia Pty. Ltd., Attn: N. S. Candy, Gen. Mgr. (dist., mfr.), P. O. Box 171, Clayton, Victoria 3168. WTD in prep.

34492—BRAZIL—Wishes to buy prefabricated hotels or motels made of aluminum structures. Milton de Carvalho, Dir., Hotel Regente (hotel services), Avenida Atlantica, 3716, Rio de Janeiro, GB. WTD in prep.

35220—ITALY—Silage cutters, dryers and blowers. Exclusive representation. Ditta L. Sgorbati (importer, mfr.), Strada Statale 11, 25086 Rezzato (Brescia). WTD 5/71.

Household appliances

36311 — GERMANY — Household and commercial microwave ovens; electric self-cleaning household ranges. Specialhaus Runte, Attn: A. Runte (importer, dist.), 47 Hamm/Westf., Weststrasse 44–Postfach 567. WTD 3/72.

36312—GERMANY—Self-cleaning grills. Specialhaus Runte, Attn: A. Runte (importer, dist.), 47 Hamm/Westf., Weststr. 44–Postfach 567. WTD 3/72.

Electrical lighting, wiring equipment

● 36400—THAILAND—Supply of 2800 mercury vapor roadway lighting luminaires together with associated ballasts, capacitors and lamps for 220 volt, 50 hz. single phase, 2-wire system. Tender No. MEA-PSD-279, bid deadline May 2. Purchases and Stores Department, Metropolitan Electricity Authority, 121 Chakpet Rd., Bangkok 2. Copy of bid invitation available on a short term loan basis from the Power and Electrical Equipment Program, BDC-776, U.S. Department of Commerce, Washington, D.C. 20230, ★202-967-5585.

● 36400—THAILAND—Supply of strain clamps, ball hooks, socket clevis and eye clevis. Tender No. MEA-PSD-280, bid deadline May 9. Purchases & Stores Department, Metropolitan Electricity Authority, 121 Chakraphet Rd., Bangkok 2. Copy of bid invitation available on a short term loan basis from the Power and Electrical Equipment Program, BDC-776, U.S. Department of Commerce, Washington, D.C. 20230, ★202-967-5585.

36410 — GREECE — Fluorescent lamps and tubes; electric lamps (bulbs). Requests c.i.f.-Piraeus price quotations. Nikitas C. Deimezis (importer, agent, retailer), 73–A Eolou St., Athens 111. WTD 3/72.

36422—ZAMBIA—Commercial and industrial electrical fittings including outdoor fittings. Requests prices, landed costs. City Radio & Refrigerating Suppliers Ltd. (importer, dist., agent), P.O. Box 619, Lusaka. WTD in prep.

36422—ZAMBIA—Commercial and industrial electrical fittings including outdoor fittings. Requests full price list, landed costs. National Electronics Retails (importer, dist., agent), P.O. Box 278, Lusaka. WTD in prep.

36430 — SWITZERLAND — Level switches. Technokontroll AG (importer, dist.), Ueberlandstr. 360, 8051 Zürich. WTD 7/71.

Radio, television receiving sets

36510—SPAIN—Radio, television receiving sets. Payma, S. L. (importer, dist.), Enrique Larreta, 9, Madrid (16). WTD 2/72.

36511 — GERMANY — Radios. Specialhaus Runte, Attn: A. Runte (importer, dist.), 47 Hamm/Westf., Weststr. 44–Postfach 567. WTD 3/72.

36512—ZAMBIA—Television sets, television receivers, radiograms, record players, automobile radio and tape recorders. Requests prices, landing costs. City Radio & Refrigerator Suppliers Ltd. (importer, dist., agent), P.O. Box 619, Lusaka. WTD in prep.

36512—ZAMBIA—Television sets, television receivers, radiograms, record players, automobile radio and tape recorders. Requests price list, landed costs. National Electronics Retails (importer, dist., agent), P.O. Box 278, Lusaka. WTD in prep.

Communications equipment

36620—GERMANY — Microwave products. Payment within two weeks; 3% trade discount. Gustav Beck KG (importer, dist., agent), 85 Nuernberg 5 (POB 150 280), Praterstrasse 32. WTD 11/71.

36622—SPAIN—Radio, television broadcast equipment, closed circuit systems. Payma, S.L. (importer, dist.), Enrique Larreta, 9, Madrid (16). WTD 2/72.

36623 — JAMAICA — Two-way across glass communications links between bank teller and customer, with power units. Brochures, price quotations requested. Bicknell's Industrial Service Ltd. (industrial service and repairs), 27 Liguanea Ave., Kingston 6. WTD in prep.

Electronic components, accessories

36740—GERMANY—Transistors, diodes,

rectifiers, thyristors, triacs. Payment within two weeks; 3% trade discount. Gustav Beck KG (importer, dist., agent), 85 Nuernberg 5 (POB 150 280), Praterstrasse 32. WTD 11/71.

36790 — GERMANY — Integrated circuits; opto-electronic components. Payment within two weeks; 3% trade discount. Gustav Beck KG (importer, dist., agent), 85 Nuernberg 5 (POB 150 280), Praterstrasse 32. WTD 11/71.

Electrical machinery, equipment, supplies

36930—SPAIN—X-ray equipment, telectrotherapeutic apparatus. Payma, S.L. (importer, dist.), Enrique Larreta, 9, Madrid (16). WTD 2/72.

36992—GERMANY — Electric heaters. Spezialhaus Runte, Attn: A. Runte (importer, dist.), 47 Hamm/Westf., Weststr. 44–Postfach 567. WTD 3/72.

36992—ZAMBIA—Electrical fittings and appliances, electric lamps and components, electric gongs, chimes, bells, Christmas tree fittings, electrical heaters. Requests price list, landing costs. City Radio & Refrigerator Suppliers Ltd. (importer, dist., agent), P.O. Box 619, Lusaka. WTD in prep.

36992—ZAMBIA—Electrical fittings and appliances, electric lamps and components, electric gongs, chimes and bells, Christmas tree fittings, electrical heaters. Requests price list, landed costs. National Electronics Retails (importer, dist., agent), P.O. Box 278, Lusaka. WTD in prep.

Ship building, repairing

37313—KOREA—Three offshore fishing boats, 350 DWT or more, second-hand. Sung Jin Moolsan Co., Ltd. (importer, dist., agent), I.P.O. Box 4112, Seoul. WTD in prep.

37322 — FRENCH WEST INDIES — Power boats, motors. Correspondence requested in French. Au Martin Pêcheur (importer, retailer), 9 Rue Sadi Carnot, Pointe-A-Pitre, Guadeloupe. WTD 3/72.

Engineering, laboratory, scientific research instruments

38111—GERMANY—Technical systems, components, parts for aeronautical, space engineering. Direct purchase & agency. Dornier AG (mfr.), P.O. Box 317, D-7990 Friedrichshafen/Bodensee, Baden-Wuerttemberg. WTD 3/72.

38112—JAPAN—Cryostat dewar as attachment to electron microscopes, about 100 units per yr. (specification: capacity —5 liters; freezing method by liquid nitrogen). Bokusui Brown Co., Ltd. M. Murai, Mgr. of Sales Operation Dept. (importer, agent), Arata Bldg., 11–4 Ginza 8-chrome, Chuo-ku, Tokyo 104. WTD 11/71.

Instruments for measuring, indicating, controlling, physical characteristics

38212 — SWITZERLAND — Flow, level meters, controls, for liquids and gases. Exclusive sales rights for Switzerland. Technokontroll AG (importer, dist.), Ueberlandstr. 360, 8051 Zürich. WTD 7/71.

38213—TURKEY—One water pipe pressure testing device to detect leakages. Capacity: 50 atmospheres; diameters of pipes to be tested: ½"-4"; pipe lengths: 6-6.5 m. Machinery quoted should necessitate minimum labor force. Technical drawings, catalogs should be submitted with offers. Yucel Boru ve Profil Endustri A.S. (mfr.), TEK, Tuzla Trafo Istasyonu Yaninda, Cayirova, Gebze. WTD 3/72.

Optical instruments, lenses

38311 — SPAIN — Spectrometers; spectrophotometers. Payma, S.L. (importer, dist.), Enrique Larreta, 9, Madrid (16). WTD 2/72.

38311—SWITZERLAND—Flexible, rigid endoscopes, fiber optics. Exclusive distributorship. Technokontroll AG (importer, dist.), Ueberlandstr. 360, 8051 Zürich. WTD 7/71.

Surgical, medical, dental instruments

● **38400—GREECE**—Disposable plastic syringes with needles: 8,010,000–2cc; 8,000–5cc; 8,000–10cc; 3,000–20cc. Tender No. 126-72, bid deadline May 23. Ministry of National Economy, Department of Procurements, Direction General of Procurements, Direction 4th of State Purchases, 20 Canningos St., Athens. Specifications available on a short-term loan basis to firms domiciled in the U.S. from the Business, Photographic and Scientific Equipment Division, BDC-708, Room 1128, U.S. Dept. of Commerce, Washington, D.C. 20230, ★202-967-2939.

38410—NETHERLANDS — Medical biofeedback systems. G.L. Loos & Co's Fabrieken N.V., Attn: T. Regout—Med. and Lab. Div. (importer, dist.), Kabelweg 37, P.O. Box 663, Amsterdam. WTD 6/71.

Photographic equipment, supplies

● **38600—KOREA**—Supply of 350 boxes original photographic paper, 150 boxes black and white photographic paper, 20 boxes half-tone photographic paper and 100 cans developer for photo type-setting composing machine. Tender No. KFX-72025-PI, bid deadline May 6. Contact the Korean Consulate General in New York, Attn: Procurement Officer, 9 East 80th St., New York, N.Y. 10021, ★212-879-8899. Tender will be financed by the Korea Exchange Fund. Terms and specifications available on short term loan basis from the Business, Photographic and Scientific Equipment Division, BDC-708, U.S. Dept. of Commerce, Washington, D.C., 20230, ★202-967-2939.

Jewelry, silverware, plated ware

39110—NEW ZEALAND—Jewelry of precious metal, including jewelry mountings to which stones must be added. Green's Precision Engineering, Attn: Arnold Green, Mng. Dir. (importer, dist., mfr.), P.O. Box 2187, Wellington. WTD 8/71.

39120 — NEW ZEALAND — Jewelers' findings. Green's Precision Engineering, Attn: Arnold Green, Mng. Dir. (importer, dist., mfr.), P.O. Box 2187, Wellington. WTD 8/71.

39141—NEW ZEALAND—Silver and plated hollowware and hollow ware blanks for plating. Green's Precision Engineering, Attn: Arnold Green, Mng. Dir. (importer, dist., mfr.), P.O. Box 2187, Wellington. WTD 8/71.

Toys, amusement, sporting goods

39492—SPAIN—Tennis balls, rackets; golf clubs, balls. Comercial de Deportes, S.A. (importer, dist.), Velázquez, 89, Madrid (6). WTD 12/71.

Manufacturing industries

39991 — ITALY — Marine-type fire extinguishers especially suitable for racing boats. Direct purchase & agency. F.I.N.D.E.R.–Forniture Industriali e Navali, Depositi e Rappresentanze (dist., agent), Via G. Bruno 2/E, 00053 Civitavecchia. WTD in prep.

39992—SPAIN — Coin-operated amusement machines. Requests catalogs, price lists. Miber, S.L. (importer, dist.), Jorge Juan 139, Madrid (28). WTD 3/72.

39999—GERMANY—All kinds of small, cheap advertising gifts from all types of material. Horst Besteck (importer, dist.), 92 Harleshaeuserstr., 3500 Kassel. WTD 3/72.

Business services

73920—NETHERLANDS—Total system responsibility for application of minicomputers to automated processes, including system analysis, specification, design and execution; general software packages designed to improve programmer and programming efficiency. Representations requested for Benelux countries, Germany. Intersystems N.V.; Attention: G. H. Robinson (importer, software house), 244 Herengracht, Amsterdam. WTD 11/71.

Malaysia Announces Tenders On Message Repeater System

The Secretary General of Malaysia's Ministry of Communications has issued Tender No. COMS/6 for a variable message repeater system. Bid deadline May 11. Copies of tender announcement and specifications are available from the Secretary General, Ministry of Communications, Jalan Gurney, Kuala Lumpur, Malaysia or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, Room 1112, U.S. Department of Commerce, Washington, D.C., 20230, ★202-967-4822.

India Seeks Testing Equipment

Bharat Heavy Electricals Limited, a Government of India Undertaking Unit has issued a Tender No. S.241 for one helium leak detector, one magnaflux testing unit, one ultrasonic testing unit, two penetrameters, and one borescope with accessories and spares. Offers should reach the Superintendent/Purchaser, Bharat Heavy Electricals Limited, Unit: Tiruverumbur, Tiruchirapalli-14, Tamil, Nadu, India no later than 1 p.m., May 5. Copy of tender is available on a short-term loan basis to firms domiciled in the U.S. from the Business, Photographic and Scientific Equipment Division, BDC-708, Room 1128, U.S. Dept. of Commerce, Washington, D.C., 20230, ★202-967-2939.

Algeria To Buy Projectors

Algeria will purchase projectors and lighting accessories under Tender No. 243-E, with a bid deadline of May 6. Bid offered by Ministere de l'Information et de la Culture, Direction de l'Administration General, 119, rue Didouche Mourad, Alger, Algerie. Bid specification may be obtained by sending $20 to: Direction des Services Techniques et de l'Equipment, Bureau 721, 21 Boulevard des Martyrs, Alger, Algerie.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Fruit, tree nut, vegetable farms

01230—GERMANY—All kinds of fresh vegetables. C. John Denard (importer, agent), 8 Burgstr., 6200 Wiesbaden. WTD 3/72.

Canning, preserving foods

20322—GERMANY—Canned soups. C. John Denard (importer, agent), 8 Burgstr., 6200 Wiesbaden. WTD 3/72.

20330 — GERMANY — All kinds of canned fruits, vegetables. C. John Denard (importer, agent), 8 Burgstr., 6200 Wiesbaden. WTD 3/72.

Confectionery

20712—JAMAICA—Bulk penny confections, caramels, chewing and bubble gums, ten cent items, including chocolates. Samples, promotion aids, quotes c.i.f. Kingston. Lee's Agencies (importer, agent, retailer), 5 Valentine Dr., Kingston 8. WTD 11/71.

Beverage industries

20830—VENEZUELA—Barley malt for breweries. Mr. Rivero, River Rey Co. (importer, agent), Apartado 61901-Este, Caracas. WTD 4/71.

20853—GERMANY — Whiskey, bottled. C. John Denard (importer, agent), 8 Burgstr., 6200 Wiesbaden. WTD 3/72.

Broad woven fabric mills, cotton

22117 — NETHERLANDS — Finished cotton broad-woven fabrics for garment industry. Direct representations of weaving mills requested. J.S. Agenturen (agent), 34 Mensinge, Amsterdam-1011. WTD 3/72.

22117—SURINAM — General line of cotton fabrics suitable for women's, children's clothing. (importer, dist., retailer), Zwartenhovenbrugstraat 137, Paramaribo. WTD 3/72.

Broad woven fabric mills, manmade fiber, silk

22214—NETHERLANDS — 100% spun polyester blends with cotton fabrics for garment industry. Direct representations of textile mills requested. J.S. Agenturen (agent), 34 Mensinge, Amsterdam-1011. WTD 7/71.

22215—SURINAM — General line of rayon and rayon mixture fabrics suitable for women's, children's clothing. (importer, dist., retailer), Zwartenhovenbrugstraat 137, Paramaribo. WTD 3/72.

Broad woven fabric mills, wool

22313 — NETHERLANDS — Finished wool apparel fabrics for garment industry. Direct representations of textile mills requested. J.S. Agenturen (agent), 34 Mensinge, Amsterdam-1011. WTD 7/71.

Knitting mills, products

22561—NETHERLANDS—Knit apparel fabrics for garment industry. J.S. Agenturen (agent), 34 Mensinge, Amsterdam-1011. WTD 7/71.

Dyeing, finishing textiles, except wool fabrics, knit goods

22617 — NETHERLANDS — Finished cotton broad-woven apparel fabrics from finishing plants. J.S. Agenturen (agent), 34 Mensinge, Amsterdam-1011. WTD 7/71.

Textile goods

22940—SPAIN—Processed textile waste; desires clippings of new waste textiles, especially of manmade fibers. Angel Llopis Belda (agent), San Nicolás, 33, Alcoy, Alicante. WTD 3/72.

Men's, youths', boys' clothing

23290 — GERMANY — Athletic suits (sweats suits), jersey type and other; athletic shorts. C. John Denard (importer, dist., agent), 8 Burgstr., 6200 Wiesbaden. WTD 3/72.

Fabricated textile products

23930 — NEW ZEALAND — Knapsacks, frames. Antarctic Products Co. Ltd. (agent), P.O. Box 223, Nelson. WTD 2/72.

23963—FRANCE — Trimmings, ribbons, bias binding (adhesive and non-adhesive). A. Nemery & Calmejane, S.A. (importer, dist., mfr.), 4, rue Albert-Thomas, 37-Tours. WTD 3/72.

Household furniture

25144 — JAMAICA — Upholstered metal household furniture. ultra-modern living room, bedroom chairs, sofas, tables. Brochures, c.i.f. quotations requested. Robinson Marketing Corp. Ltd. (importer, dist., retailer), 10 Trafalgar Rd., Kingston 5. WTD in prep.

Industrial chemicals

28152 — PAKISTAN — Dyes, chemicals for use in textile industry. Requests catalogs, quotations, c. & f., Karachi. The Mechanica Ltd. (importer, agent), 408, Qamar House, M.A. Jinnah Road, Karachi. WTD in prep.

Synthetic materials

28213—CANADA—Thermoplastic resins (powders): polyethylene; polypropylene; polyvinyl chloride; nylon resins. R. C. Walker (Manufacturers' rep.), 301 Dixon Rd., Suite 1706, Weston 625, Ontario. WTD in prep.

28214—CANADA—Dry epoxy resins. R. C. Walker (manufacturers' representative), 301 Dixon Rd., Suite 1706, Weston 625, Ontario. WTD in prep.

28214—GERMANY—All kinds of thermosetting resins. Indroma Chemikalien GmbH. (importer, agent), Berliner Str. 31-35, POB 1122, 6236 Eschborn/Ts. WTD 3/72.

Drugs

28312 — PORTUGAL — Vaccines, allergenic extracts, other biological products for human use. Uniao Fabril Farmaceutica, SARL. (importer, retailer, mfr.), Travessa das Pedras Negras 1-5°, Lisbon 2. WTD in prep.

28340 — PAKISTAN — Pharmaceutical preparations. Requests catalogs, quotations, c. & f., Karachi. Kassim Sait & Sons (importer, agent), P.O. Box 5152, Karachi. WTD in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28423 — JAMAICA — Household aerosol air fresheners; specifications: containers with paper labels unacceptable. Brochures, prices, c.i.f. Kingston requested. Lee's Agencies (importer, agent, retailer), 5 Valentine Dr., Kingston 8. WTD 11/71.

28423—SWITZERLAND — Dry cleaning chemicals, preparations. AGOL Chemie AG, Attn: W. von Siebenthal (importer, dist., mfr.), Freiburgstrasse 618, 3172 Niederwangen. WTD 7/71.

Paints, varnishes, lacquers, enamels

28516 — SWITZERLAND — Varnishes, drying preparations for printing industry. AGOL Chemie AG, Attn: W. von Siebenthal (importer, dist., mfr.), Freiburgstrasse 618, 3172 Niederwangen. WTD 7/71.

28516—THAILAND—Vibratory finishing for metal, plastic. Requests catalogs, c.i.f. Bangkok prices. Uniroyal Machinery & Equipment Co., Ltd. (importer, dist.), 107 Soi Swatdi, P.O. Box 107, Ladprao, Bangkok. WTD 2/72.

Chemical products

28930—SWITZERLAND — Offset printing inks. Cotellas SA, Attn: Peter C. Ralli (importer, dist.), 3/5 rue du Conseil Général, 1205 Geneva. WTD in prep.

28930—SWITZERLAND—Novel printing inks, including electrostatic inks. AGOL Chemie AG, Attn: W. von Siebenthal (importer, dist., mfr.), Freiburgstrasse 618, 3172 Neiderwangen. WTD 7/71.

Footwear, except rubber

31417—GERMANY—Athletic shoes, all kinds. C. John Denard (importer, dist., agent), 8 Burgstr., 6200 Wiesbaden. WTD 3/72.

Flat glass

32114—CANADA—Tempered glass for windows, doors in buildings, such as shower doors; tempered glass for automotive use. Raymond Hottat, Can-Am Tempar Glass Ltd., (importer, dist.), 634 Joncas St., Ste. Dorothee, Laval, Quebec. WTD in prep.

Glass, glassware

32291 — PORTUGAL — Glass kitchenware, ovenware, tableware. Olavo Cruz, Lda. (importer, agent), Rua das Flores, 59, Lisbon 2. WTD in prep.

Abrasive, asbestos, nonmetallic mineral products

32930—ITALY — Leather and artificial fiber back-up rings for aircraft, missile and tank industries. Dalmar-Avio S.r.l. (importer, agent), Via Romolo Bitti 32, 20125 Milan. WTD 2/72.

Steel mill products

33120—ISRAEL—High quality steel for forgings, castings (ferrous). Exclusive agency. Dov Shomroni (importer, wholesale dist., agent), 7 Eilat St., P.O. Box 8570, Tel Aviv-Yafo. WTD 8/71.

33159—FRANCE—Key-chains. A. Nemery & Calmejane, S.A. (importer, dist., mfr.), 4, rue Albert-Thomas, 37-Tours. WTD 3/72.

Iron, steel foundries

33210—ISRAEL—Iron castings, gray/semisteel/nodular/alloy steel; pearlitic castings, malleable iron; ingot moulds and stools; pipe and fittings of cast iron; rolling mill rolls/steel. Exclusive agency. Dov Shomroni Ltd. (importer, wholesale dist., agent), 7 Eilat St., P.O. Box 8570, Tel Aviv-Yafo. WTD 8/71.

Primary smelting, refining of nonferrous metals

33310 — ISRAEL — Primary copper, blister or anode, bars, sheets, tubing wire; aluminum in bars, sheets, rods, wire. Exclusive agency. Dov Shomroni Ltd. (importer, wholesale dist., agent), 7 Eilat St., P.O. Box 8570, Tel Aviv-Yafo. WTD 8/71.

Nonferrous foundries

33610—ISRAEL — Aluminum castings; die castings. Exclusive agency. Dov Shomroni Ltd. (importer, wholesale dist., agent), 7 Eilat St., P.O. Box 8570, Tel Aviv-Yafo. WTD 8/71.

Primary metal industries

33920 — ISRAEL — Forgings, iron/steel, nonferrous, titanium; gears of forged steel. Exclusive agency. Dov Shomroni Ltd. (importer, wholesale dist., agent), 7 Eilat St., P.O. Box 8570, Tel Aviv-Yafo. WTD 8/71.

General hardware

34290—ENGLAND—Hose fittings. Metropolitan Tool & Products Ltd., Attn: D. S. Hancock, Sales Mgr. (importer, mfr., exporter), Metool Works, Lilac Drove, Beeston, Nottingham, NG9 1PG. WTD in prep.

Heating apparatus, plumbing fixtures

34310 — PORTUGAL — Stainless steel kitchen sinks. Olavo Cruz, Lda. (importer, agent), Rua das Flores, 59, Lisbon 2. WTD in prep.

34336 — AUSTRIA — Hot-air heating equipment for installation in walls and ceilings; unit ventilators; packaged heating units including filters, fans, humidifier, heat registers, etc., 220/380 V, 50 cycles. Oesterreichische Armaturen-A.G. (OeAG) (dist., mfr., agent), Schemmerlstrasse 66-68, A-1110 Vienna. WTD 1/72.

Fabricated structural metal products

34439—TAIWAN — Petroleum tanks. Maritime Engineering Service (agent, consulting engineers), P. O. Box 265, Taipei. WTD in prep.

Fabricated metal products

34941—TAIWAN—Metal valves for piping systems including ball, diaphragm-actuated, butterfly, solenoid-actuated, needle and control valves. Yung Hsing Trading Co., Ltd. (importer, agent, exporter), P. O. Box 696, Taipei. WTD 1/72.

Engines, turbines

35191—SURINAM — Small gasoline engines (¼ up to 1 horsepower), four stroke type, suitable for use with water pumps, small electrical generators, lawn mowers, similar applications. Wishes to buy 50 units at once, foresees purchase of 200 or more during coming year. Would also like to purchase stock of spares. N.V. Chin On Bros. (importer, retailer), Watermolenstraat 7-9, Paramaribo. WTD in prep.

35192—TAIWAN—Marine diesel engines for fishing boats. Maritime Engineering Service (agent, consulting engineers), P. O. Box 265, Taipei. WTD in prep.

Construction, mining, materials handling machinery, equipment

35320—UNITED KINGDOM — Mining machinery and equipment; quarrying machinery, equipment. Geo. Moxon (Engineers) Ltd., Attn: W. L. Wood, Dir. (dist.), 23 Claremont Crescent, Sheffield, Yorks., S10 2TA. WTD in prep.

35360—UNITED KINGDOM—Electrical accessories for cranes. Metropolitan Tool & Products Ltd., Attn: D. S. Hancock, Sales Mgr. (importer, mfr., exporter), Metool Works, Lilac Grove, Beeston, Nottingham, NG9 1PG. WTD in prep.

35370—UNITED KINGDOM — Fork lift trucks. Q Lift (Leyland) Co., Attn: J. J. Dickinson, Dir. (dist., mfr., exporter), Causeway House, Ulnes Walton Lane, Ulnes Walton, Near Leyland, Lancs. WTD in prep.

Metalworking machinery

35421—KOREA—Suture needle making machine. Han Wha Trade Corp. (agent), I.P.O. Box 3519, Seoul. WTD in prep.

35480—UNITED KINGDOM—Wire machinery. Ed. Brand Ltd., Attn: S. A. Miles, Dir. (dist.), Doman Rd., Camberley, Surrey. WTD 3/72.

35484—SWITZERLAND — Automotive maintenance equipment, service station tools, novelties only. Werkzeug-Pfister AG (importer, dist.), Sonnenbergstrasse 38, 5734 Reinach. WTD 3/72.

Special industry machinery

35511—PORTUGAL—Ice cream making machinery. Olavo Cruz, Lda. (importer, agent), Rua das Flores, 59, Lisbon 2. WTD in prep.

35513—UNITED KINGDOM—Packaging canning, shrink wrapping, cartoning, case packing machinery and collating systems for cans, bottles, packets, etc. Amdelco (Systems) Ltd., Attn: Peter E. Elford, Dir. (dist., mfr.), P.O. Box 46, Caversham, Reading, Berkshire, RC4 7HQ. WTD in prep.

35551—SWITZERLAND—Small to medium printing presses, auxiliary machines, tools. AGOL Chemie AG, Attn: W. von Siebenthal (importer, dist., mfr.), Freiburgstrasse 618, 3172 Niederwangen. WTD 7/71.

35552—GERMANY—Machinery for production of continuous forms, other special machinery for printing trade, excluding presses. Edelmann & Co., Maschinenfabrik (dist., mfr.), In der Stadtwiese, 6124 Beerfelden/Odw. WTD 3/72.

35552—SWITZERLAND — Presensitized offset plates; auxiliary equipment for offset industry including chemicals and printing inks, except presses and photographic equipment. Cotellas SA, Attn: Peter C. Ralli (importer, dist.), 3/5 rue du Conseil Général, 1205 Geneva. WTD in prep.

35590 — UNITED KINGDOM — Plastics working machinery such as injection molding machines, blow molding machines, plastics extrusion machines. Mortimer Plastics Machinery Ltd., Attn: B. A. Humphrey, Sales Mgr. (dist.), P & S Group Machinery Centre, Coronation Rd., Park Royal, London, N.W.10. WTD in prep.

35592—THAILAND — Foundry molding equipment. Requests catalogs, c.i.f. Bangkok prices. Uniroyal Machinery & Equipment Co., Ltd. (importer, dist.), 107 Soi Swatdi, P.O. Box 107, Ladprao, Bangkok. WTD 2/72.

35593—GERMANY — Plastics working machinery, equipment. Indroma Chemikalien GmbH. (importer, agent), Berliner Str. 31-35, POB 1122, 6236 Eschborn/Ts. WTD 3/72.

35593—UNITED KINGDOM — Plastics machinery. Ed. Brand Ltd., Attn: S. A. Miles, Dir. (dist.), Doman Rd., Camberley, Surrey. WTD 3/72.

General industrial machinery

35615—TAIWAN—Pumps, compressors. Yung Hsing Trading Co., Ltd. (importer, agent, exporter), P. O. Box 696, Taipei. WTD 1/72.

35642—THAILAND—Air pollution control for industrial purpose, including: filter tube type; electro precipitator type; cyclone type; hydrofilter type. Requests catalogs, c.i.f. Bangkok prices. Uniroyal Machinery & Equipment Co., Ltd. (importer, dist.), 107 Soi Swatdi, P.O. Box 107, Ladprao, Bangkok. WTD 2/72.

35660—UNITED KINGDOM—Couplings, clutches, brakes, specialist forms of gears and gearboxes in mechanical power transmission field. The Davall Gear Co. Ltd., Attn: J. K. Johnston, Transmission Products Mgr. (mfr., exporter), High St., Potters Bar, Hertfordshire. WTD in prep.

Accounting machines

35791—ZAMBIA—Lamson-Paragon type or equal invoicing machine which locks bottom copy of invoice in machine. Trans-Continental Suppliers Ltd., Attn: Mr. Kallman (importer, dist., agent), P.O. Box 171, Lusaka. WTD in prep.

Service industry machines

35852—GERMANY — Air conditioning units for individual rooms both residential, commercial buildings; especially medium-sized units. Should be able to provide wide range from small to large units. TURBON Ventilatoren und Apparatebau GmbH Attn: Joachim H. Conert (dist., mfr.), 28-29 Alt-Reinickendorf, 1 Berlin 51. WTD 3/72.

35852—JORDAN—Air conditioning, central units with capacity for 30,000 BTU upwards. Zeine & Co. (importer, dist., agent), P.O. Box 101, Amman. WTD in prep.

35892—PORTUGAL — Dishwashing machines, garbage disposal units for hotels, restaurants. Olavo Cruz, Lda. (importer, agent), Rua das Flores, 59, Lisbon 2. WTD in prep.

35892—THAILAND — Water treatment equipment for home, industrial purposes. Requests catalogs, c.i.f. Bangkok prices. Uniroyal Machinery & Equipment Co., Ltd. (importer, dist.), 107 Soi Swatdi, P.O. Box 107, Ladprao, Bangkok. WTD 2/72.

Household appliances

36393—PORTUGAL—Food waste disposers, household. Olavo Cruz, Lda. (im-

porter, agent), Rua das Flores, 59, Lisbon 2. WTD in prep.

Communication equipment

36622—TAIWAN—Closed-circuit television systems, equipment to be used as fishing aids (new product). Marine Engineering Service (agent, consulting engineers), P.O. Box 265, Taipei. WTD in prep.

Electronic components, accessories

36730—FRANCE — Transmittal, industrial, special purpose electron tubes. International Semiconductor Corp.–France (importer, agent), 20, rue Gambetta, 92–Boulogne. WTD 7/71.

36740—GERMANY—Transistors, diodes. C.i.f. Munich; 3% discount within 8 days; 60 days net; free incl. packing; delivery immediately if possible. Sasco Vertrieb von elektronischen Bauelementen GmbH (dist., agent), 8011 Putzbrunn b. Muenchen, Hermann-Oberth-strasse 16. WTD 12/71.

36740—SWITZERLAND—Diodes, transistors, rectifiers for electronic applications. Elbatex AG, Attn: Mr. Weber (importer, dist., agent), Alb. Zwyssig Strasse 28, 5430 Wettingen. WTD 6/71.

Electrical machinery, supplies

36944—THAILAND—Spark plugs, automotive type. Requests c.i.f. Bangkok prices, catalogs, delivery terms. Seng Fah Ltd., Part., Attn: Mr. Smarn Mekanandha, Import Mgr. (importer, dist., agent), 445/1-2 Mahachai Rd., Siyek Samranraj, Bangkok. WTD 10/71.

Motor vehicles, and equipment

37130—UNITED KINGDOM—Refuse vehicles without chassis. General Descaling Co. Ltd., Attn: J. C. Morgan, Technical Sales Mgr. (mfr.), Retford Rd., Worksop, Nottinghamshire. WTD in prep.

Engineering, laboratory, scientific research instruments

38112—CANADA — Primary laboratory, scientific instruments suitable for use in elementary, secondary schools. Will stock, distribute, market throughout Canada. William Tindale, Gen. Mgr., Stansi Material Div. of Fisher Scientific Co. Ltd. (importer, dist., retailer), 8555 Devonshire Rd., Montreal 307, Quebec. WTD in prep.

Optical instruments, lenses

38311—CANADA—Optical instruments, laboratory analysis apparatus suitable for use in elementary, secondary schools. Will stock, distribute, market throughout Canada. William Tindale, Gen. Mgr., Stansi Material Div. of Fisher Scientific Co. Ltd. (importer, dist., retailer), 8555 Devonshire Rd., Montreal 307, Quebec. WTD in prep.

Watches, clocks, parts

38720 — SWITZERLAND — Fancy, upper priced watch cases. ITRACO Watch Co. Ltd., Attn: B. Forrer (dist., mfr.), P.O. Box 289, 8027 Zürich. WTD 2/72.

Toys, amusement, sporting goods

39410—CANADA—Scientific games, kits, toys suitable for use in elementary schools. Will stock, distribute, market throughout Canada. William Tindale, Gen. Mgr., Stansi Material Div. of Fisher Scientific Co. Ltd. (importer, dist., retailer), 8555 Devonshire Rd., Montreal 307, Quebec. WTD in prep.

39490 — GERMANY — Fishing tackle, rods and reels; golf equipment, archery equipment, other outdoor sporting goods. C. John Denard (importer, dist., agent), 8 Burgstr., 6200 Wiesbaden. WTD 3/72.

39490 — SWITZERLAND — Home trainers, fitness equipment, playground equipment, related novelty sporting goods, incl. massage, slimming apparatus. Kewi-Versand, Attn: W. Keller (importer, dist., retailer), P.O. Box 134, 5600 Lenzburg. WTD 3/72.

Manufacturing industries

39992—SPAIN — Coin-operated amusement machines. Enrique Recagno Delgado (agent), Bretón de los Herreros, 18, Madrid (3). WTD 3/72.

Malaysia Seeks To Purchase Portable Microwave Equipment

Malaysia's Director General (Engineering), Dept. of Broadcasting has issued Tender No. 3/JP/TV/72 for portable microwave links and associated equipment. Bid deadline May 4. Bid should offer four complete sets microwave link equipment (Kuala Lumpur)) transmitting frequencies 6902, 6987, 7784 and 7840Mhz. One complete set microwave link equipment (Kuala Lumpur) transmitting frequency 1072Mhz. Three complete sets microwave link equipment, transmitting frequencies 6987, 7062, 7087Mhz.

Copies of tender announcement and specifications are available from the Secretary General, Ministry of Information, Angkasapuri (fourth floor) Bukit Putra, Kuala Lumpur or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, Room 1112 U.S. Department of Commerce, Washington, D.C., 20230, ★202-967-4822.

Algeria To Purchase Film Treatment, Laboratory Items

The Republic of Guinea, Algerian Interests Sec., will purchase equipment for a film processing laboratory. Bid is made by the "Radiodiffusion Television Algerienne" with a bid closing date of May 6. Copies of the tender are available from the Algerian Interests Sec., 2118 Kalorama Rd., NW., Washington, D.C. 20008, ★202-234-7246.

Algeria will purchase other laboratory equipment and film treatment supplies through direct contact with the Direction des Services Techniques et de l' Equipment—R.T.A., 21 Bd. des Martyrs, Alger, Algerie. Enclose $20 for bid specification on Tender 237-E. Bid closing date is also May 6.

Malaysia Wants To Buy Four Videotape Recorders And Spares

The Director-General (Engineering) of Malaysia's Department of Broadcasting has issued Tender No. 4/JP/TV/72 for the supply of four complete videotape recorders, spares and associated equipment. Bid deadline is May 9. Bid should offer installation, commissioning, testing and proving of all equipment and a three week training period. Copies of tender announcement and specifications are available only from the Secretary General, Ministry of Information, Angakasapuri (4th floor) Bukit Putra, Kuala Lumpur.

Visiting Buyers And Officials

AUSTRALIA—M. A. Harrell of H. Rowe & Co. Pty. Ltd., interested in additional **agencies for electrical and electronic instruments, industrial switchgear, lighting, distribution systems, and wants technical information.** Apr. 17 via Los Angeles for approx. two weeks. c/o Trade Commissioner's Office, Australian Con. Gen., 3600 Wilshire Blvd., Los Angeles, Calif. 90005. Itinerary: Los Angeles, East Coast cities. WTD 11/71.

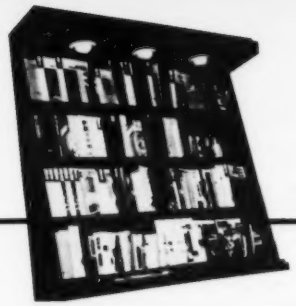
DAHOMEY—Quenum Possy-Berry F., Technical Counselor to the Ministry of Labor, interested in meeting U.S. investment corporations and consulting firms and requesting technical information on **U.S. manufacturing techniques and installations.** April via New York for one month. c/o Embassy of Dahomey, 2737 Cathedral Ave., NW., Washington, D.C. 20008. Itinerary: New York, Boston, Philadelphia, Washington.

JAPAN—Yozo Shirai of Tokyo, interested in information on **investment opportunities in the U. S.** April via Los Angeles for indefinite stay. c/o Japanese Con. Gen., 250 East 1st St., Los Angeles, Calif. 90012. Itinerary: Los Angeles, Detroit, New York, Chicago, New Orleans, Miami. WTD in preparation.

JAPAN—M. Yoshida and G. Oda, of Nippon Shoji Kaisha Ltd., Osaka, interested in meeting U.S. wholesalers to arrange importing into Japan **non-prescription medicines and supplies such as sanitary articles, medical sundries, toilet and bath products, cleaning and polishing compounds, medical equipment, special foods, baby products, nursing requisites, specialties such as test paper for diabetics.** Apr. 25 via New York for one month. c/o Roosevelt Hotel, Madison Ave. & 45th St., New York, N.Y. 10017. Itinerary: 4/25-28 New York, 4/29-30 Buffalo, 5/1-3 New York, 5/4-5 Chicago, 5/6-8 New Orleans, 5/9-12 Los Angeles, 5/13-16 San Francisco, Honolulu. WTD in preparation.

NETHERLANDS—E. Boer and W. Donker, of Samsom Automatiserings Service Centrum N.V., interested in **U. S. software packages for advanced applications and agencies for software packages in Western Europe.** Apr. 22 via Los Angeles for four weeks. c/o Netherlands Chamber of Commerce in the U.S., World Trade Center, Room 233, San Francisco, Calif. 94111. Itinerary: Los Angeles, Colorado Springs, Cincinnati, Chicago, Washington, D.C., New York. WTD in preparation.

ZAMBIA—Ramanlal R. Kapadia of Modern Fabrics Ltd., Lusaka, interested in **purchase and agencies for textiles, household linen, haberdashery, drapery.** Apr. 18 via New York for about ten days. c/o Western International Hotels, 405 Lexington Ave., New York, N.Y. 10017. Itinerary: New York. WTD in preparation.



New Publications

When ordering any publication, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its 42 field offices throughout the country.

OFFICE OF MINORITY BUSINESS ENTERPRISE

OMBE outlook. March 1972.

MARITIME ADMINISTRATION

Containerized cargo on selected trade routes: calendar year 1970. 32 pp. 35¢.
Maritime subsidies. 1971. 186pp. $1.50.

DOMESTIC AND INTERNATIONAL BUSINESS

BUREAU OF INTERNATIONAL COMMERCE

Export control bulletin—supplement to Export control regulations (ECB-OEC-60). 24 pp. 40¢.

International Marketing Information Service

Exhibitor's Export Market Guide

Electronica '72 to spark new growth spurt in European electronics market (IMIS 72-005). 8 pp. 10¢.

World Markets for U.S. Exports

Industrial and scientific instruments—Spain (IMIS 72-206). 20pp. 10¢.
Air conditioning and refrigeration equipment—Spain (IMIS 72-207). 12pp. 10¢.
Industrial and scientific instruments—Sweden (IMIS 72-208). 20pp. 10¢.
Industrial and scientific instruments—Venezuela (IMIS 72-209). 12pp. 10¢.

Overseas Business Reports

Annual subscription $16 ($5 more for foreign mailing). Single copy 15¢.
Foreign trade regulations of Singapore (OBR 72-001). 8pp.
Foreign trade regulations of Viet-Nam (OBR 72-003). 8pp.
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Basic data on the economy of Belgium (OBR 71-071). 20pp.
Basic data on the economy of Japan (OBR 71-072). 28pp.
Studies on U.S. foreign investment. Vol. 1. $1.75. This volume presents the first three of five projected studies on the multinational corporation: (1) policy aspects of foreign investment by U.S. multinational corporations; (2) U.S. multinational enterprises and the U.S. economy; (3) trends in direct investments abroad by U.S. multinational corporations—1960 to 1970.

ECONOMIC AFFAIRS

SOCIAL AND ECONOMIC STATISTICS ADMINISTRATION BUREAU OF ECONOMIC ANALYSIS

1971 business statistics. 18th biennial edition. October 1971. A supplement to Survey of Current Business. 278pp. $3.

BUREAU OF THE CENSUS

Small-area data notes. Vol. 7, No. 2. 8pp. 10¢.
Pretests and dress rehearsals of the 1970 Census of Population and Housing: a procedural history. Working Paper No. 32. 28pp. 50¢.

1970 Census of Housing

Block Statistics

Reports in this series present statistics from the 1970 Census by blocks on general characteristics of housing and population:

Selected areas in California (HC(3)-29). 232pp. and 65 maps. $14.
Kansas City, Mo.-Kans. urbanized area (HC(3)-135). 178pp. and 39 maps. $7.25.
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Detailed Housing Characteristics

Maine (HC(1)-B21). 99pp. $1.25.
Oregon (HC(1)-B39). 131pp. $1.50.
Utah (HC(1)-B46). 123pp. $1.50.
Vermont (HC(1)-B47). 81pp. $1.
Washington (HC(1)-B49). 143pp. $1.50.
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General Housing Characteristics

Virgin Islands (HC(1)-A55). 34pp. 45¢.
Amer. Samoa (HC(1)-A56). 24pp. 45¢.
Canal Zone (HC(1)-A57). 26pp. 45¢.
Trust Territory of the Pacific Islands (HC(1)-A58). 40pp. 45¢.
General housing characteristics for the United States, by metropolitan and urban-rural residence: 1970 (HC(S1)-2). 12pp. 15¢.

Construction and Housing

Housing completions: January 1972 (C22-72-1). Annual subscription $1. Single copy 10¢.
Value of new construction put in place: January 1972 (C30-72-1). Annual subscription $2.50, includes monthly and annual supplement. Single copy 25¢.
Housing authorized by building permits and public contracts—States and selected standard metropolitan statistical areas: 1971 (C40-71S). Series C40, price $8 per year, $2 more for foreign mailing; single copy (annual) $2; single copy (monthly) 55¢; and supplement 10¢.
Authorized construction — Washington, D.C. area: February 1972 (C41-72-2). Annual subscription $1. Single copy 10¢.
Residential alterations and repairs—expenditures on residential additions, alterations, maintenance and repairs, and replacements: fourth quarter 1971 (C50-71Q4). Annual subscription, including 2-part annual report, $1.50. Single copy 25¢.

Housing Reports

Market absorption of apartments—4th quarter 1971 (H-130-71-4). Annual subscription $1.50. Single copy prices: quarterly, 25¢, and annual, 50¢.
Housing vacancies—vacancy rates and characteristics of housing in the United States: annual statistics 1971 (Series H-111-71-5). Annual subscription (Series H-111 and H-121, combined), $1.50; foreign mailing $2. Single copy 50¢.

Distribution and Services

Monthly department store sales in selected areas: January 1972 (BD-72-1). 8pp. Annual subscription $1. Single copy 10¢.
Monthly retail trade—sales and accounts receivable: January 1972 (BR-72-1). 25¢.
Weekly retail sales. Estimated weekly retail sales of retail stores in the United States for week ending March 18 (CB 72-71). 2pp. 10¢.
Weekly retail sales. Week ending March 25 (CB 72-75). 2pp. 10¢.

Foreign Trade

Puerto Rico and U.S. possessions: November 1971 (FT 800-71-11). Annual subscription $2.50 (75¢ more for foreign mailing). Single copy 20¢.
Puerto Rico and U.S. possessions: October 1971 (FT 800-71-10). Annual subscription $2.50 (75¢ more for foreign mailing). Single copy 20¢.
Exports—commodity by country: December 1971 (FT 410-71-12). Annual subscription $33 ($8.25 more for foreign mailing). Single copy $2.75.
Bunker fuels: calendar year 1971 (FT 810-71-13). Annual subscription $1. Single copy 10¢.
Bunker fuels: January 1972 (FT 810-72-1). Annual subscription $1. Single copy 10¢.
Export and import merchandise: Febru-

ary 1972 (FT-900-72-2). Annual subscription (FT 900, 975, 985, and 986 combined), $3. Single copy 10¢.

Waterborne exports and general imports: December 1971 (FT 985-71-12). Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

Governments

Quarterly summary of State and local tax revenue: October-December 1971 (GT 71 No. 4). 8pp. 25¢.

Industry

Annual survey of manufactures: 1969—part 3—East North Central division (M69 (AS)-6.3). 46pp. 25¢.

Aircraft propellers: 1971 (Series: MA-37E(71)-1). 1p. Annual subscription $2.50 (including M37G and M37D). Single copy 15¢.

Shipments of knit cloth, including interplant transfers: fourth quarter 1971 (Series: MQ-22K(71)-4). 8pp. $1 per year. 25¢.

Pharmaceutical preparations, except biologicals: 1970 (Series: MA-28G(70)-1). 8pp. 25¢.

Inventories of brass and copper-wire mill shapes: 1970 (Series: M33K(70)-13). 16pp. $1.50 per year. 15¢.

Population

Estimates of the population of the United States to February 1, 1972 (Series P-25, No. 478). 2pp. 5¢.

Projections of the population of voting age for States: November 1972 (Series P-25, No. 479). 12pp. 15¢.

1970 Census of Population

General Population Characteristics

Guam (PC(1)-B54). 87pp. 60¢.
Virgin Islands (PC(1)-B55). 59pp. 65¢.
Amer. Samoa (PC(1)-B56). 48pp. 50¢.
Canal Zone (PC(1)-B57). 63pp. 60¢.
Trust Territory of the Pacific Islands (PC(1)-B58). 75pp. 60¢.

General Social and Economic Characteristics

Dist. of Col. (PC(1)-C10). 159pp. $1.25.
Kansas (PC(1)-C18). 235pp. $2.25.
Louisiana (PC(1)-C20). 319pp. $2.25.
Maine (PC(1)-C21). 195pp. $1.50.
Nebraska (PC(1)-C29). 291pp. $2.
N. Dakota (PC(1)-C36). 215pp. $1.50.
Virginia (PC(1)-C48). 423pp. $3.
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Race of the population of the United States, by States: 1970 (PC(S1)-11). 4pp. 10¢.

Race and urban and rural residence of the population of the United States, by States: 1970 (PC(S1)-12). 8pp. 10¢.

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1970 Census of Population and Housing

This report presents statistics by census tract on the characteristics of the population and housing units as reported in the 1970 Census of Population and Housing.

Albany, Ga. standard metropolitan statistical area (PHC(1)-3). 41pp. 55¢.
Biloxi-Gulfport, Miss. standard metropolitan statistical area (PHC(1)-24). 64 pp. 55¢

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Lafayette, La. standard metropolitan statistical area (PHC(1)-102). 59pp. $1.

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Lincoln, Nebr. standard metropolitan statistical area (PHC(1)-114). 69pp. $1.

Lynchburg, Va. standard metropolitan statistical area (PHC(1)-121). 60pp. 55¢.

Madison, Wis. standard metropolitan statistical area (PHC(1)-123). 98pp. and 1 map. $1.50.

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